## MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY AIR QUALITY DIVISION

April 1, 2024

PERMIT TO INSTALL 37-24

ISSUED TO
DTE Electric Company

DTE Redford Service Center 12000 Dixie Road Redford, Michigan 48239

IN THE COUNTY OF Wayne

## STATE REGISTRATION NUMBER P1457

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

March 28, 2024	UIRED BY RULE 203:
April 1, 2024	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

## **PERMIT TO INSTALL**

## **Table of Contents**

COMMON ACRONYMS	2
POLLUTANT / MEASUREMENT ABBREVIATIONS	3
GENERAL CONDITIONS	4
EMISSION UNIT SPECIAL CONDITIONS	6
EMISSION UNIT SUMMARY TABLE	6
EUENGINE01	7

#### **COMMON ACRONYMS**

AQD Air Quality Division

BACT Best Available Control Technology

CAA Clean Air Act

CAM Compliance Assurance Monitoring
CEMS Continuous Emission Monitoring System

CFR Code of Federal Regulations

COMS Continuous Opacity Monitoring System

Department/department/EGLE Michigan Department of Environment, Great Lakes, and Energy

EU Emission Unit FG Flexible Group

GACS Gallons of Applied Coating Solids

GC General Condition GHGs Greenhouse Gases

HVLP High Volume Low Pressure\*

ID Identification

IRSLInitial Risk Screening LevelITSLInitial Threshold Screening LevelLAERLowest Achievable Emission RateMACTMaximum Achievable Control TechnologyMAERSMichigan Air Emissions Reporting System

MAP Malfunction Abatement Plan MSDS Material Safety Data Sheet

NA Not Applicable

NAAQS National Ambient Air Quality Standards

NESHAP National Emission Standard for Hazardous Air Pollutants

NSPS New Source Performance Standards

NSR New Source Review
PS Performance Specification

PSD Prevention of Significant Deterioration

PTE Permanent Total Enclosure

PTI Permit to Install

RACT Reasonable Available Control Technology

ROP Renewable Operating Permit

SC Special Condition

SCR Selective Catalytic Reduction SNCR Selective Non-Catalytic Reduction

SRN State Registration Number

TBD To Be Determined

TEQ Toxicity Equivalence Quotient

USEPA/EPA United States Environmental Protection Agency

VE Visible Emissions

<sup>\*</sup>For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

#### **POLLUTANT / MEASUREMENT ABBREVIATIONS**

acfm Actual cubic feet per minute

BTU British Thermal Unit °C Degrees Celsius CO Carbon Monoxide

CO2e Carbon Dioxide Equivalent dscf Dry standard cubic foot dscm Dry standard cubic meter Pegrees Fahrenheit

gr Grains

HAP Hazardous Air Pollutant

Hg Mercury hr Hour

HP Horsepower Hydrogen Sulfide

kW Kilowatt

lb Pound

m Meter

mg Milligram

mm Millimeter

MM Million

MW Megawatts

NMOC Non-Methane Organic Compounds

NO<sub>x</sub> Oxides of Nitrogen

ng Nanogram

PM Particulate Matter

PM10 Particulate Matter equal to or less than 10 microns in diameter PM2.5 Particulate Matter equal to or less than 2.5 microns in diameter

pph Pounds per hour ppm Parts per million

ppmv Parts per million by volume
ppmw Parts per million by weight
psia Pounds per square inch absolute

psig Pounds per square inch absolut Pounds per square inch gauge

scf Standard cubic feet

 $\begin{array}{ccc} \text{sec} & \text{Seconds} \\ \text{SO}_2 & \text{Sulfur Dioxide} \end{array}$ 

TAC Toxic Air Contaminant

Temp Temperature

THC Total Hydrocarbons tpy Tons per year Microgram

µm Micrometer or Micron
VOC Volatile Organic Compounds

yr Year

#### **GENERAL CONDITIONS**

- 1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. (R 336.1201(1))
- 2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. (R 336.1201(4))
- 3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to Rule 210 (R 336.1210), operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. (R 336.1201(6)(b))
- 4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. (R 336.1201(8), Section 5510 of Act 451, PA 1994)
- 5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. (R 336.1219)
- 6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. (R 336.1901)
- 7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal condition or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). (R 336.1912)
- 8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
- 9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
- 10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

- 11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of Rule 301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with Rule 303 (R 336.1303). (R 336.1301)
  - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
  - b) A visible emission limit specified by an applicable federal new source performance standard.
  - c) A visible emission limit specified as a condition of this Permit to Install.
- 12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). (R 336.1370)
- 13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. (R 336.2001)

## **EMISSION UNIT SPECIAL CONDITIONS**

## **EMISSION UNIT SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EUENGINE01	Diesel-fired transportable engine rated at 2,935 HP (2,189 kW, 2000 ekW). The engine will provide electricity to customers and internal end users when permanent sources of power temporarily unavailable.	TBD	NA

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1291.

# EUENGINE01 EMISSION UNIT CONDITIONS

#### **DESCRIPTION**

Diesel-fired transportable engine rated at 2,935 HP (2,189 kW, 2,000 ekW). The engine will provide electricity to customers and internal end users when permanent sources of power temporarily unavailable.

Flexible Group ID: NA

## **POLLUTION CONTROL EQUIPMENT**

NA

## I. EMISSION LIMIT(S)

1. NOx 8.4	3.4 g/kW-hr	Hourly	EUENGINE01	SC V.1	R 336.1205
					(1)(a) & (3), 40 CFR 52.21(c) & (d)
2. NOx 3	38.5 tpy*	12-month rolling time period as determined at the end of each calendar month	EUENGINE01	SC VI.6	R 336.1205 (1)(a) & (3), 40 CFR 52.21(c) & (d)

## II. MATERIAL LIMIT(S)

1. The permittee shall burn only ultra-low sulfur diesel in EUENGINE01, where ultra-low sulfur diesel has a maximum sulfur content of 15 ppm (0.0015 percent) by weight. (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))

#### III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. The permittee shall not operate EUENGINE01 for more than a total of 1,900 hours per site/ stationary source during the combined 12-months as determined at the end of each calendar month. (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))
- 2. The permittee shall not retain EUENGINE01 at any singular location for more than 6 consecutive months. Upon approval from the AQD District Supervisor, the permittee may site EUENGINE01 at any singular location for no longer than 12 consecutive months. Request for approval must be submitted to the AQD District Supervisor no later than 30 days prior to EUENGINE01 exceeding 6-consecutive months. (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ)
- 3. The permittee shall not relocate EUENGINE01 to any new geographical site in Michigan unless all of the following criteria are met:

- a) EUENGINE01 shall not have any outstanding unresolved violations of any of the EGLE Air Pollution Control rules, order, or permits; or federal air quality regulations.
- b) The installation of EUENGINE01 at the geographical site shall be of a temporary nature lasting not more than 6 consecutive months unless approval has been granted by the AQD District Supervisor per SC III.2.
- c) The permittee shall provide a notice of intent to relocate along with a proposed site plan to the AQD district office not less than 10 days prior to the scheduled relocation identifying the proposed new geographical site and the probable duration at the new site. The permittee shall clearly identify all residential or commercial establishments and places of public assembly within 150 feet of the proposed site of EUENGINE01 on the proposed site plan. In the case of an emergency permittee shall provide a notice of intent to relocated along with a proposed site plan to the AQD within 2 business days after moving the source.
- d) The permittee shall not locate EUENGINE01 within 25 feet of a residential or commercial establishment or a place of public assembly.
- e) The permittee shall clearly post a copy of this approved permit and permit conditions in the operator's office or workstation and shall post the permit number on the equipment where it is clearly visible from the operator's office or workstation. (Act 451 324.5505, R 336.1201, R 336.1205, R 336.1225)

## IV. <u>DESIGN/EQUIPMENT PARAMETER(S)</u>

- 1. The permittee shall equip and maintain EUENGINE01 with a non-resettable hour meter to track the operating hours. (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))
- 2. The nameplate capacity of EUENGINE01 shall not exceed 2,935 HP (2,189 kW, 2000 ekW), as certified by the equipment manufacturer. (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))

#### V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

 Upon request of the AQD District Supervisor, the permittee shall verify NOx emission rates from EUENGINE01 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference	
NOx	40 CFR Part 60, Appendix A	

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. (R 336.1205, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))

## VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

 The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))

- The permittee shall keep, in a satisfactory manner, records confirming that the diesel fuel is ultra-low sulfur diesel for each delivery of diesel fuel oil used in EUENGINE01. The permittee shall keep the records on file with EUENGINE01 and make them available to the Department upon request. (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))
- 3. The permittee shall monitor, in a satisfactory manner, the hours of operation for EUENGINE01 per site and all sites on a monthly and a 12-month cumulative time period basis for EUENGINE01. The permittee shall keep, in a satisfactory manner, the required records of hours on file with EUENGINE01 and make them available to the Department upon request. (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))
- 4. The permittee shall keep, in a satisfactory manner, records and information associated with each location on site of EUENGINE01 as required by SC III.2 and SC III.3. The permittee shall keep all records on file with EUENGINE01 and make them available to the Department upon request. (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))
- 5. The permittee shall keep, in a satisfactory manner, manufacturer information regarding the engine, including the size and emissions profile, on file with EUENGINE01 and make it available to the Department upon request. (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))
- 6. The permittee shall keep, in a satisfactory manner, monthly and previous 12-month NO<sub>x</sub> emission calculation records per site and all sites for EUENGINE01, as required by SC I.1. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1205(1)(a) & (3), 40 CFR 52.21 (c) & (d))

#### VII. REPORTING

NA

### VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVENGINE01	24	24	R 336.1225,
			40 CFR 52.21(c) & (d)

## IX. OTHER REQUIREMENT(S)

1. The permittee shall install and maintain fencing, warning signs, and/or other measures as necessary to prevent unauthorized individuals from accessing EUENGINE01. (R 336.1901)

#### Footnotes:

<sup>&</sup>lt;sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).