MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

January 24, 2017

PERMIT TO INSTALL 142-16

ISSUED TO City of Eaton Rapids Electric Department

> LOCATED AT 300 Market Street Eaton Rapids, Michigan

IN THE COUNTY OF

Eaton

STATE REGISTRATION NUMBER P0725

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. 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).

 DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203:

 September 28, 2016

 DATE PERMIT TO INSTALL APPROVED:
 SIGNATURE:

 January 24, 2017
 SIGNATURE:

 DATE PERMIT VOIDED:
 SIGNATURE:

 DATE PERMIT REVOKED:
 SIGNATURE:

PERMIT TO INSTALL

Table of Contents

| Section | Page |
|---|------|
| Alphabetical Listing of Common Abbreviations / Acronyms | 2 |
| General Conditions | 3 |
| Special Conditions | 5 |
| Emission Unit Summary Table | 5 |
| Flexible Group Summary Table | 5 |
| Special Conditions for FGENGINES | 6 |

Common Abbreviations / Acronyms

| Common Acronyms | | Pollutant / Measurement Abbreviations | | |
|-----------------|--|---------------------------------------|---|--|
| AQD | Air Quality Division | acfm | Actual cubic feet per minute | |
| BACT | Best Available Control Technology | BTU | British Thermal Unit | |
| CAA | Clean Air Act | °C | Degrees Celsius | |
| CAM | Compliance Assurance Monitoring | со | Carbon Monoxide | |
| CEM | Continuous Emission Monitoring | CO ₂ e | Carbon Dioxide Equivalent | |
| CFR | Code of Federal Regulations | dscf | Dry standard cubic foot | |
| СОМ | Continuous Opacity Monitoring | dscm | Dry standard cubic meter | |
| Department/ | Michigan Department of Environmental | °F | Degrees Fahrenheit | |
| department | Quality | gr | | |
| EU | Emission Unit | HAP | Hazardous Air Pollutant | |
| FG | Flexible Group | Hg | Mercury | |
| GACS | Gallons of Applied Coating Solids | hr | Hour | |
| GC | General Condition | HP | Horsepower | |
| GHGs | Greenhouse Gases | H ₂ S | Hydrogen Sulfide | |
| HVLP | High Volume Low Pressure* | kW | Kilowatt | |
| ID | Identification | lb | Pound | |
| IRSL | Initial Risk Screening Level | m | Meter | |
| ITSL | Initial Threshold Screening Level | mg | Milligram | |
| LAER | Lowest Achievable Emission Rate | mm | Millimeter | |
| MACT | Maximum Achievable Control Technology | MM | Million | |
| MAERS | Michigan Air Emissions Reporting System | MW | Megawatts | |
| MAP | Malfunction Abatement Plan | NMOC | Non-methane Organic Compounds | |
| MDEQ | Michigan Department of Environmental | NOx | Oxides of Nitrogen | |
| MODO | Quality | ng | Nanogram | |
| MSDS NA | Material Safety Data Sheet Not Applicable | PM | Particulate Matter | |
| NAAQS | National Ambient Air Quality Standards | PM10 | Particulate Matter equal to or less than 10 microns in diameter | |
| NESHAP | National Emission Standard for Hazardous | | Particulate Matter equal to or less than 2.5 | |
| | Air Pollutants | PM2.5 | microns in diameter | |
| NSPS | New Source Performance Standards | pph | Pounds per hour | |
| NSR | New Source Review | ppm | Parts per million | |
| PS | Performance Specification | ppmv | Parts per million by volume | |
| PSD PTE | Prevention of Significant Deterioration Permanent Total Enclosure | ppmw | Parts per million by weight | |
| | Permit to Install | psia | Pounds per square inch absolute | |
| PTI | | psig | Pounds per square inch gauge | |
| RACT | Reasonable Available Control Technology | scf | Standard cubic feet | |
| ROP | Renewable Operating Permit | sec | Seconds | |
| SC | Special Condition | SO ₂ | Sulfur Dioxide | |
| SCR | Selective Catalytic Reduction | TAC | Toxic Air Contaminant | |
| SNCR | Selective Non-Catalytic Reduction | Temp | Temperature | |
| SRN | State Registration Number | THC | Total Hydrocarbons | |
| TEQ | Toxicity Equivalence Quotient | tpy | Tons per year | |
| USEPA/EPA | United States Environmental Protection Agency | μg | Microgram | |
| VE | Visible Emissions | μm | Micrometer or Micron | |
| | | VOC | Volatile Organic Compounds Year | |
| | | yr | i cai | |

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

GENERAL CONDITIONS

- 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 Environmental Quality, 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 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 R 336.1219 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 R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. (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, 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 R 336.1301, 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 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.
- 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 R 336.1370(2). (R 336.1370)
- 13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. (R 336.2001)

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 (Process Equipment & Control Devices) | Installation Date / Modification Date | Flexible Group ID |
|--|--|--|-------------------|
| EUENGINE1 | A 1,920 HP Fairbanks Morse Model 38DD8-1/8 dual-fueled Engine/Generator Set, capable of producing 1,360 kW at full load, manufactured in 1960. Serial # 969685. | 1992 | FGENGINES |
| EUENGINE2 | A 2,880 HP Fairbanks Morse Model 38TDD8- 1/8 dual-fueled Engine/Generator Set, capable of producing 2,000 kW at full load, manufactured in 1960. Serial # 970493. | 1991 | FGENGINES |
| 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 336.1290. | | | |

FLEXIBLE GROUP SUMMARY TABLE

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

| Flexible Group ID | Flexible Group Description | Associated Emission Unit IDs |
|-------------------|---|---------------------------------|
| FGENGINES | Two dual-fueled engines. Both units are subject to 40 CFR Part 63 Subpart ZZZZ. | EUENGINE1, EUENGINE2 |

The following conditions apply to: FGENGINES

DESCRIPTION: Two dual-fueled engines. Both units are subject to 40 CFR Part 63 Subpart ZZZZ.

Emission Units: EUENGINE1, EUENGINE2

POLLUTION CONTROL EQUIPMENT: Non-Selective Catalytic Reduction (NSCR) for compliance with 40 CFR Part 63 Subpart ZZZZ.

I. EMISSION LIMITS

NA

II. MATERIAL LIMITS

1. The permittee shall burn only diesel fuel oil, natural gas fuel, or a combination thereof in FGENGINES. (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate for each engine in FGENGINES for more than 500 hours per year on a 12-month rolling time period basis 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))

IV. DESIGN/EQUIPMENT PARAMETERS

- 1. The nameplate capacity of EUENGINE1 shall not exceed 1,360 kW and EUENGINE2 shall not exceed 2,000 kW, as documented by the equipment manufacturer. (R 336.1205(1)(a) & (3))
- 2. The permittee shall equip and maintain each engine in FGENGINES with a non-resettable hours 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))

V. TESTING/SAMPLING

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

NA

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 monitor and record the hours of operation of each engine in FGENGINES, on a monthly and 12-month rolling time period basis, in a manner that is acceptable to the District Supervisor, Air Quality Division. The permittee shall keep all records on file 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))

VII. <u>REPORTING</u>

NA

VIII. STACK/VENT RESTRICTIONS

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. SVENGINE1 | 24 | 33.5 | R 336.1225, |
| | | | 40 CFR 52.21(c) & (d) |
| 2. SVENGINE2 | 30 | 22 | R 336.1225, |
| | | | 40 CFR 52.21(c) & (d) |

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63 Subparts A and ZZZZ, as they apply to each engine in FGENGINES. (40 CFR Part 63 Subparts A & ZZZZ)

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).