

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

December 19, 2023

**PERMIT TO INSTALL**  
147-23

**ISSUED TO**  
General Motors Corporation

**LOCATED AT**  
36880 Ecorse Road, Romulus Engine Division  
Romulus, Michigan 48174

**IN THE COUNTY OF**  
Wayne

**STATE REGISTRATION NUMBER**  
B5815

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).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: <b>December 1, 2023</b>	
DATE PERMIT TO INSTALL APPROVED: <b>December 19, 2023</b>	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  
    EU COATING.....7  
    EU SOLVENT ..... 10  
    EU AIR SUPPLY ..... 12  
    EU EMISSIONS..... 13

## 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
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan 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

\*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
CO <sub>2</sub> e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H <sub>2</sub> S	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 gauge
scf	Standard cubic feet
sec	Seconds
SO <sub>2</sub>	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	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.

<b>Emission Unit ID</b>	<b>Emission Unit Description (Including Process Equipment &amp; Control Device(s))</b>	<b>Flexible Group ID</b>
EUCOATING	Electrode ink coating and drying process. Electrode inks are applied to carbon fiber-based paper substrates on two equivalent coating lines before being dried in electrically-heated ovens.	NA
EUSOLVENT	Use of ethanol as a cleaning solvent throughout the facility.	NA
EUAIRSUPPLY	Various natural gas-fired air supply houses used throughout the facility. Maximum total heat input: 5 MMBtu/hr.	NA
EUEMGEN	162.7 HP (123.2 kW) natural gas-fired reciprocating internal combustion engine driving an emergency generator.	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.

**EUCOATING  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Electrode ink coating and drying process. Electrode inks are applied to carbon fiber-based paper substrates on two equivalent coating lines before being dried in electrically-heated ovens.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

VOC emissions are controlled by a natural gas-fired regenerative thermal oxidizer (RTO).

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. VOC	16.9 tpy	12-month rolling time period as determined at the end of each calendar month	EUCOATING	SC VI.3	R 336.1205, R 336.1702(a) & (d)

**II. MATERIAL LIMIT(S)**

NA

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

1. The permittee shall not operate EUCOATING unless a malfunction abatement plan (MAP), as described in Rule 911(2), for the RTO has been submitted within 90 days of producing the first saleable fuel cell, and is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1911)**
2. The permittee shall capture all waste materials and shall store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1702(a))**
3. The permittee shall handle all VOC and / or HAP containing materials, including coatings, reducers, solvents and thinners, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. **(R 336.1225, R 336.1702(a))**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate EUCOATING unless the RTO is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the RTO includes maintaining a minimum RTO combustion chamber temperature at the manufacturer's recommended temperature until an acceptable performance test has been performed, after which the RTO combustion chamber temperature shall be maintained at the temperature during the most recent control device performance test which demonstrated compliance with a

minimum 97 percent capture efficiency, a minimum 95 percent destruction efficiency, and a minimum retention time of 0.5 seconds. In lieu of a minimum temperature, the permittee may use an average temperature based upon a three-hour rolling average. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1910)**

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, acceptable to the AQD District Supervisor, a temperature monitoring device in the combustion chamber of the RTO to monitor and record the temperature, on a continuous basis, during operation of EUCOATING. Continuous shall be defined in this permit as at least one reading every 15 minutes. **(R 336.1225, R 336.1702)**

#### **V. TESTING/SAMPLING**

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

1. Within 180 days after producing the first saleable fuel cell, the permittee shall verify the destruction efficiency of the RTO in EUCOATING by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 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 336.1702(a), R 336.2001, R 336.2003, R 336.2004)**

#### **VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available 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, R 336.1225, R 336.1702)**
2. The permittee shall continuously monitor and record, in a satisfactory manner, the temperature in the combustion chamber of the RTO during operation of EUCOATING. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. **(R 336.1225, R 336.1702(a))**
3. The permittee shall keep the following information on a monthly basis for EUCOATING:
  - a) Gallons (with water) of each material used.
  - b) VOC content (with water) of each material as applied.
  - c) VOC emission calculations determining the monthly emission rate in tons per calendar month from EUCOATING.
  - d) VOC emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month from EUCOATING.

The permittee shall keep the records on file at the facility, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

4. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225, R 336.1702)**

#### **VII. REPORTING**

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation,

construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of EUCOATING. (R 336.1201(7)(a))

**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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SV-RTO	60	78	R 336.1225, 40 CFR 52.21 (c) & (d)

**IX. OTHER REQUIREMENT(S)**

NA

**EUSOLVENT  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Use of ethanol as a cleaning solvent throughout the facility.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. VOC	4.9 tpy	12-month rolling time period as determined at the end of each calendar month	EUSOLVENT	SC VI.2	336.1702(a)

**II. MATERIAL LIMIT(S)**

1. The permittee shall not use more than 1,500 gallons of ethanol in EUSOLVENT per 12-month rolling period, as determined at the end of each calendar month. **(R 336.1225, R 336.1702(a))**

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

1. The permittee shall handle all VOC and/or HAP containing materials, including coatings, reducers, solvents, and thinners, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. **(R 336.1224, R 336.1225, R 336.1702(a))**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**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))**

1. The permittee shall complete all required calculations/records 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 336.1225, R 336.1702(a))**
2. The permittee shall keep the following information on a monthly basis for the use of clean-up materials associated with EUCLEANUP:
  - a) Gallons of ethanol used, on a monthly and 12-month rolling time period as determined at the end of each calendar month.

- b) VOC mass emission calculations determining the emission rate in tons, monthly and per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records on file at the facility, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request. **(R 336.1225, R 336.1702(a))**

**VII. REPORTING**

NA

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

NA

**IX. OTHER REQUIREMENT(S)**

NA

<b>EUAIRSUPPLY EMISSION UNIT CONDITIONS</b>
---

**DESCRIPTION**

Various natural gas-fired air supply houses used throughout the facility. Maximum total heat input: 5 MMBTU/hr.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

1. The permittee shall not burn fuel other than natural gas in EUAIRSUPPLY. (R 336.1225, R 336.1702(a))

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

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The maximum design heat input capacity for all air houses in EUAIRSUPPLY combined shall not exceed a total of 5 MMBTU per hour on a fuel heat input basis. (R 336.1225, R 336.1702(a))

**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))

1. The permittee shall keep records of the maximum design heat input capacity (in MMBTU) of each heater in EUHEATERS. (R 336.1225, R 336.1702(a))

**VII. REPORTING**

NA

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

NA

**IX. OTHER REQUIREMENT(S)**

NA

## EUEMGEN EMISSION UNIT CONDITIONS

**DESCRIPTION**

162.7 HP (123.2 kW) natural gas-fired reciprocating internal combustion engine driving an emergency generator.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NO <sub>x</sub> <sup>A</sup>	2.0 g/HP-hr - OR - 160 ppmvd at 15% oxygen	Hourly	EUEMGEN	SC V.1, SC VI.4	40 CFR 60.4233(e), Table 1 to 40 CFR 60, Subpart JJJJ
2. CO <sup>A</sup>	4.0 g/HP-hr - OR - 540 ppmvd at 15% oxygen	Hourly	EUEMGEN	SC V.1, SC VI.4	40 CFR 60.4233(e), Table 1 to 40 CFR 60, Subpart JJJJ
3. VOC <sup>A,B</sup>	1.0 g/HP-hr - OR - 86 ppmvd at 15% oxygen	Hourly	EUEMGEN	SC V.1, SC VI.4	40 CFR 60.4233(e), Table 1 to 40 CFR 60, Subpart JJJJ

ppmvd = parts per million by volume at 15 percent oxygen and on a dry gas basis.

<sup>A</sup> For non-certified engines, the permittee may choose to comply with either g/hp-hr or ppmvd at 15% O<sub>2</sub>.

<sup>B</sup> For purposes of Part 60 Subpart JJJJ, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

**II. MATERIAL LIMIT(S)**

1. The permittee shall burn only pipeline quality natural gas in EUEMGEN. **(R 336.1225, R 336.1702(a), 40 CFR 60.4230)**

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

1. The permittee shall not operate EUEMGEN for more than 500 hours per year, based on a 12-month rolling time period as determined at the end of each calendar month. The 500 hours includes the hours for the purpose of necessary maintenance checks and readiness testing as described in SC III.2. **(R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**
2. The permittee may operate EUEMGEN for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. **(40 CFR 60.4243(d)(2))**

3. The permittee may operate EUEMGEN up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted as part of the 100 hours per calendar year provided for maintenance and testing as provided in 40 CFR 60.4243(d)(2). Except as provided in 40 CFR 60.4243(d)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **(40 CFR 60.4243(d)(3))**
4. If the permittee purchases an engine certified according to procedures specified in 40 CFR Part 60 Subpart JJJJ, for the same model year, and operates and maintains the certified stationary SI combustion engine and control device according to the manufacturer's emission related written instructions, the permittee must meet the requirements as specified in 40 CFR Part 1068, Subparts A through D as they apply. If the permittee adjusts engine settings according to and consistent with the manufacturer's instructions, the stationary SI internal combustion engine will not be considered out of compliance. **(40 CFR 60.4243(a)(1), 40 CFR 60.4243(b)(1))**
5. If the permittee purchases an engine certified according to procedures specified in 40 CFR Part 60 Subpart JJJJ, for the same model year, and does not operate and maintain the certified stationary SI combustion engine and control device according to the manufacturer's emission related written instructions, the engine will be considered a non-certified engine. The permittee must keep a maintenance plan and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 60.4243(a)(2)(ii), 40 CFR 60.4243(b)(1))**
6. If the permittee purchases a non-certified engine, the permittee must keep a maintenance plan and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 60.4243(b)(2)(i))**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall equip and maintain EUEMGEN with a non-resettable hours meter to track the operating hours. **(R 336.1225, 40 CFR 60.4209, 40 CFR 60.4237(b))**

#### **V. TESTING/SAMPLING**

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

1. If the permittee purchased a non-certified engine or does not operate and maintain a certified engine and control device according to the manufacturer's written emission-related instructions, the permittee is required to perform initial performance testing as indicated in 40 CFR 60.4244, but is not required to conduct subsequent performance testing unless the stationary engine undergoes rebuild, major repair or maintenance. Therefore, the permittee must demonstrate compliance as follows:
  - a) Conduct an initial performance test to demonstrate compliance with the applicable emission standards in 40 CFR 60.4233(e), within 60 days after achieving the maximum production rate at which the engines will be operated, but no later than 180 days after initial startup, or within 1 year after the engine is no longer operated as a certified engine.
  - b) If a performance test is required, the performance tests shall consist of three separate test runs of at least 1 hour, for each performance test required in 40 CFR 60.4244 and Table 2 to 40 CFR Part 60, Subpart JJJJ.

If a performance test is required, no less than 30 days prior to testing, a complete test plan shall be submitted to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of 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. **(40 CFR 60.8, 40 CFR 60.4243, 40 CFR 60.4244, 40 CFR 60.4245, 40 CFR Part 60 Subpart JJJJ)**

**VI. MONITORING/RECORDKEEPING**

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

1. If the permittee purchases an engine certified according to procedures specified in 40 CFR Part 60 Subpart JJJJ, for the same model year, and operates and maintains the certified stationary SI combustion engine and control device according to the manufacturer's emission related written instructions, the permittee must keep records of conducted maintenance to demonstrate compliance. **(40 CFR 60.4243(a)(1), 40 CFR 60.4243(b)(1))**
2. If the permittee purchases an engine certified according to procedures specified in 40 CFR Part 60 Subpart JJJJ, for the same model year, and does not operate and maintain the certified stationary SI combustion engine and control device according to the manufacturer's emission related written instructions, the permittee must keep records of conducted maintenance to demonstrate compliance. In addition, the permittee must conduct an initial performance test, as specified in SC V.1, to demonstrate compliance. **(40 CFR 60.4243(a)(2)(ii), 40 CFR 60.4243(b)(1))**
3. If the permittee purchases a non-certified engine, the permittee must keep records of conducted maintenance. In addition, the permittee must conduct an initial performance test, as specified in SC V.1, to demonstrate compliance. **(40 CFR 60.4243(b)(2)(i))**
4. The permittee shall keep, in a satisfactory manner, the following records for EUEMGEN:
  - a) All notifications submitted to comply with 40 CFR Part 60, Subpart JJJJ, and all documentation supporting any notification.
  - b) Maintenance conducted on the engine.
  - c) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 1048, 1054, and 1060, as applicable.
  - d) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner, documentation that the engine meets the emission standards.
    - i. Testing for each engine, as required in SC V.1.
    - ii. Maintenance activities for each engine, as required by SC III.5 and SC III.6.
5. The permittee shall monitor and record the total hours of operation for EUEMGEN on a monthly and 12-month rolling time period basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter for EUEMGEN, on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation of EUEMGEN, including what classified the operation as emergency and how many hours are spent for non-emergency operation. **(40 CFR 60.4245(b))**

**VII. REPORTING**

1. The permittee shall submit a notification specifying whether EUEMGEN will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days following the initial startup of the engine and within 30 days of switching the manner of operation. **(40 CFR 60 Subpart JJJJ)**

**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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVEMGEN	3	4.2	40 CFR 52.21 (c) & (d)

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with all applicable provisions of the federal Standards of Performance for Stationary Spark Ignition Internal Combustion Engines as specified in 40 CFR Part 60, Subparts A and Subpart JJJJ. **(40 CFR Part 60, Subparts A and JJJJ)**
2. The permittee shall comply with all applicable provisions of the federal National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines as specified in 40 CFR Part 63, Subparts A and Subpart ZZZZ. **(40 CFR 63.6590(c), 40 CFR Part 63 Subparts A and ZZZZ)**