

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

April 12, 2024

PERMIT TO INSTALL
38-24

ISSUED TO
General Motors Corporation

LOCATED AT
31295 Charles Kettering Road
Warren, Michigan 48092

IN THE COUNTY OF
Macomb

STATE REGISTRATION NUMBER
B4049

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: January 26, 2024 | |
| DATE PERMIT TO INSTALL APPROVED: April 12, 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

 EUELECFILLI 7

 EUSOLVENT 9

 EU-EMGENBCDC..... 11

FLEXIBLE GROUP SPECIAL CONDITIONS..... 15

 FLEXIBLE GROUP SUMMARY TABLE 15

 FGMIXING 16

 FGCOATING..... 19

 FGCUTTING 23

 FGFORMBLDG..... 26

 FGNATGAS 28

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 ₂ 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 ₂ S | Hydrogen Sulfide |
| kW | Kilowatt |
| lb | Pound |
| m | Meter |
| mg | Milligram |
| mm | Millimeter |
| MM | Million |
| MW | Megawatts |
| NMOC | Non-Methane Organic Compounds |
| NO _x | 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 ₂ | 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.

| Emission Unit ID | Emission Unit Description (Including Process Equipment & Control Device(s)) | Flexible Group ID |
|------------------|--|-------------------|
| EUANOMIX | Anode material metering and mixing process. Dry powders and water are combined to form an anode slurry. | FGMIXING |
| EUCATMIX | Cathode material metering and mixing process. Dry powders and solvent are combined to form a cathode slurry. | FGMIXING |
| EUANOCOAT | Anode slurry coating and slitting process where slurry is applied to copper foil and dried using an electric dryer. | FGCOATING |
| EUCATCOAT | Cathode slurry coating and slitting process where slurry is applied to aluminum foil and dried using an electric dryer. | FGCOATING |
| EUNMPRCVY | N-methyl-2-pyrrolidone (NMP) recovery system. NMP evaporated from the slurry application lines will be recovered for off-site processing. | FGCOATING |
| EUANOCUT | Anode slitting and notching process used to separate coated anode rolls into individual electrode sheets. | FGCUTTING |
| EUCATCUT | Cathode slitting and notching process used to separate coated cathode rolls into individual electrode sheets. | FGCUTTING |
| EUASSEMBLY | Battery cell packaging process where anode and cathode substrates are stacked together, laminated, and placed into a battery cell. Aluminum and copper tabs are then laser-welded to the battery cells. | FGCUTTING |
| EUELECFILLI | First-stage electrolyte injection process. Electrolyte solution is injected into battery cells under vacuum pressure. First electrolyte injection occurs in Main Building. | NA |
| EUELECFILLII | Second-stage electrolyte injection process. Additional solution is injected into battery cells under vacuum pressure. Second electrolyte injection occurs in Formation Building. | FGFORMBLDG |
| EUFORMDEGAS | Formation and degassing process. Assembled cells are initially charged and discharged to form a solid electrolyte interface. Gases formed during initial charging and discharging are extracted under vacuum pressure. | FGFORMBLDG |
| EUSOLVENT | Facility wide usage of cleaning solvents. | NA |
| EU-EMGENBCDC | A 163 HP (119.9 kW) natural gas-fired reciprocating internal combustion engine driving an emergency generator. | NA |
| EUDOCKHEAT | Facility-wide usage of dock heaters | FGNATGAS |
| EUAIRSUPPLY | Various natural gas-fired air supply houses used throughout the facility. | FGNATGAS |

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.

| |
|---|
| EUELECFILLI EMISSION UNIT CONDITIONS |
|---|

DESCRIPTION

First-stage electrolyte injection process. Electrolyte solution is injected into battery cells under vacuum pressure. First electrolyte injection occurs in Main Building.

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. VOC | 2.84 tpy | 12-month rolling time period as determined at the end of each month | EUELECFILLI | SC VI.3 | R 336.1702(a) |

II. MATERIAL LIMIT(S)

1. For the first twelve months after commencement of operation, the total combined energy output of all cells produced within EUELECFILLI shall not exceed 0.05 GW-hours per month. After the first twelve months of operation, the total combined energy output of all cells produced within EUELECFILLI shall not exceed 0.6 GW-hours per 12-month rolling time period. **(R 336.1205, R 336.1702(a))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

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 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 336.1225, R 336.1702(a), R 336.1910)**
2. The permittee shall keep the following on a monthly basis for EUELECFILLI: **(R 336.1205, R 336.1702(a))**
 - a) The type of each cell produced.
 - b) The number of each type of cell produced.
 - c) The energy output of each type of cell produced.
 - d) The total volume of electrolyte solution used.

- e) The VOC content of the electrolyte solution.
3. For the first twelve months after commencement of operation, the permittee shall calculate the monthly and total VOC emission rate for EUELECFILLI. After the first twelve months of operation, the permittee shall calculate the VOC emissions rate monthly and per 12-month rolling time period. **(R 336.1205, R 336.1702(a))**

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. SVELECFILLBCDC | 94.5 | 50 | R 336.1225, 40 CFR 52.21(c) & (d) |

IX. OTHER REQUIREMENT(S)

NA

**EUSOLVENT
EMISSION UNIT CONDITIONS**

DESCRIPTION

Facility wide usage of cleaning solvents.

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. VOC, acetone (CAS No. 67-64-1), and dimethyl carbonate (CAS No. 616-38-6) combined | 10.6 tpy | 12-month rolling period as determined at the end of each month | EUSOLVENT | SC VI.2 | R 336.1225, R 336.1702 |

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall handle all VOC and/or HAP containing materials used in EUSOLVENT 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 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 336.1225, R 336.1702(a), R 336.1910)**
2. The permittee shall keep the following information on a monthly basis for EUSOLVENT:
 - a) Gallons of each solvent used and reclaimed.
 - b) The VOC content, acetone content, and dimethyl carbonate content, in pounds per gallon, of each solvent used.

- c) VOC, acetone, and dimethyl carbonate mass emission calculations determining the combined monthly emission rate in tons per calendar month.
- d) VOC, acetone, and dimethyl carbonate mass emission calculations determining the combined annual emission rate in tons 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 336.1224, R 336.1225, R 336.1702(a))**

- 3. The permittee shall maintain a current listing from the manufacturer of the chemical composition of the cleaning solvents, 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 at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

**EU-EMGENBCDC
 EMISSION UNIT CONDITIONS**

DESCRIPTION

A 163 HP (119.9 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 _x | 2.0 g/HP-hr - OR - 160 ppmvd at 15% oxygen | Hourly | EU-EMGENBCDC | SC V.1 | 40 CFR 60.4233(e), Table 1 to 40 CFR 60 Subpart JJJJ |
| 2. CO | 4.0 g/HP-hr - OR - 540 ppmvd at 15% oxygen | Hourly | EU-EMGENBCDC | SC V.1 | 40 CFR 60.4233(e), Table 1 to 40 CFR 60 Subpart JJJJ |
| 3. VOC | 1.0 g/HP-hr - OR - 86 ppmvd at 15% oxygen | Hourly | EU-EMGENBCDC | SC V.1 | 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.

^A For non-certified engines, the permittee may choose to comply with either g/hp-hr or ppmvd at 15% O₂.

^B 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 natural gas in EU-EMGENBCDC. **(R 336.1225, R 336.1702(a), 40 CFR 60.4230)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-EMGENBCDC 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 EU-EMGENBCDC 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 EU-EMGENBCDC 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 EU-EMGENBCDC 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

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 EU-EMGENBCDC:
 - 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 EU-EMGENBCDC 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 EU-EMGENBCDC, 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 EU-EMGENBCDC, including what classified the operation as emergency and how many hours are spent for non-emergency operation. **(40 CFR 60.4245)**

VII. REPORTING

1. The permittee shall submit a notification specifying whether EU-EMGENBCDC 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:

| Stack & Vent ID | Maximum Exhaust Diameter / Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|----------------------------|---|---|---|
| 1. SVEMGEN | 3.9 | 5.3 | 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)**

FLEXIBLE GROUP SPECIAL CONDITIONS

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 |
|-------------------|---|--------------------------------------|
| FGMIXING | Anode and cathode material metering and mixing process. Particulate emissions from each process are controlled by a dust collector. | EUANOMIX, EUCATMIX |
| FGCOATING | Anode and cathode slurry coating and slitting process. NMP from the cathode slurry is recovered using a solvent recovery system (EUNMPCVY) | EUANOCOAT, EUCATCOAT, EUNMPCVY |
| FGCUTTING | All cutting processes controlled by dust collectors. Includes initial cutting and notching processes as well as any residual cutting from assembly process. | EUANOCUT, EUCATCUT, EUASSEMBLY |
| FGFORMBLDG | Formation Building operations including second electrolyte filling, formation, and degassing. | EUELECFILLII, EUFORMDEGAS |
| FGNATGAS | Various natural gas-fired equipment used throughout the Main Building and Formation Building. | EUDOCKHEAT, EUAIRSUPPLY |

FGMIXING FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Anode and cathode material metering and mixing process. Particulate emissions from each process are controlled by a dust collector.

Emission Unit: EUANOMIX, EUCATMIX

POLLUTION CONTROL EQUIPMENT

Each mixing process is controlled by a separate dust collector.

I. EMISSION LIMIT(S)

1. There shall be no visible emissions from each dust collector stack (SVANOMIXDC and SVCATMIXDC) in FGMIXING. **(R 336.1301, R 336.1331, 40 CFR 52.21(c) & (d))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FGMIXING unless the dust collectors are installed, maintained, and operated in a satisfactory manner. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**
2. The permittee shall not operate FGMIXING unless a malfunction abatement plan (MAP), as described in Rule 911(2), for the dust collectors is implemented and maintained. The MAP shall, at a minimum, specify the following:
 - a) A complete preventative maintenance program including identification of the title of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
 - b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
 - c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

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 336.1205, R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a device to monitor the pressure drop for the dust collectors in FGMIXING on a continuous basis. **(R 336.1205, R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1910)**

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 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 336.1224, R 336.1225, R 336.1910)**
2. The permittee shall monitor the dust collector emission points to verify the filters are operating properly, by taking visible emission readings for FGMIXING a minimum of once per calendar month, if operating. A "visible emissions reading" refers to a survey to be performed for the purpose of determining if there is the presence of visible emissions or if there are no visible emissions, other than uncombined water vapor. Visible emission readings shall be taken at least once per month, if operating, for one minute in duration, during daylight hours and during routine operating conditions. This can be performed by either a certified or non-certified reader. Such readings do not have to be conducted per the requirements of Method 9. Multiple stacks may be observed simultaneously. If any visible emissions (other than uncombined water vapor) are observed, the permittee shall inspect the filters and perform any required maintenance or shut down the affected operation within two hours of the visible emissions occurrence. **(R 336.1910)**
3. The permittee shall keep, in a satisfactory manner, records of all visible emission readings for FGCUTTING. At a minimum, records shall include the date, time, name of observer/reader, whether the reader is certified, status of visible emissions, and the type of maintenance performed. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1301, R 336.1303, R 336.1910)**
4. The permittee shall continuously monitor and record the pressure drop for the dust collectors in FGMIXING, during operation, with instrumentation acceptable to the AQD District Supervisor. Continuous pressure drop recordings shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The permittee shall keep these records on file at the facility and make them available to the Department upon request. **(R 336.1301, R 336.1910)**
5. The permittee shall keep documentation listing the manufacturer's specifications for the baghouse dust collectors, including the maximum allowable flow rate and guaranteed concentration of PM through the collectors. The permittee shall maintain this record on site and make it available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1301, R 336.1331, 40 CFR 52.21(c) & (d))**

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 FGMIXING. **(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:

| Stack & Vent ID | Maximum Exhaust Diameter / Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|----------------------------|---|---|---|
| 1. SVANOMIXDC | 22.8 | 80 | R 336.1225, 40 CFR 52.21(c) & (d) |
| 2. SVCATMIXDC | 18.9 | 80 | R 336.1225, 40 CFR 52.21(c) & (d) |
| 3. SVANOMIXUNC | 94.5 | 50 | R 336.1225, 40 CFR 52.21(c) & (d) |
| 4. SVCATMIXUNC | 94.5 | 50 | R 336.1225, 40 CFR 52.21(c) & (d) |

IX. OTHER REQUIREMENT(S)

NA

**FGCOATING
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Anode and cathode slurry coating and slitting process. NMP from the cathode slurry is recovered using a solvent recovery system (EUNMPCVY)

Emission Unit: EUANOCOAT, EUCATCOAT, EUNMPCVY

POLLUTION CONTROL EQUIPMENT

The coating process takes place within a Permanent Total Enclosure (PTE) as defined in EPA Method 204. VOC emissions from the cathode coating process are controlled by an NMP recovery system (EUNMPCVY). The NMP recovery system recovers the cathode coating solvent for off-site processing.

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|------------------|-------------------------------------|---|------------------|------------------------------------|---|
| 1. VOC | 2.6 lb/gal (minus water) as applied | Instantaneous | EUCATCOAT | SC V.3, SC VI.2 | R 336.1702(a) |
| 2. VOC | 20.2 tpy | 12-month rolling time period as determined at the end of each month | FGCOATING | SC VI.2 | R 336.1205, R 336.1225, R 336.1702(a) |

II. MATERIAL LIMIT(S)

1. The permittee shall not process more than 532,088 gallons of NMP (CAS No. 872-50-4) in EUCATCOAT per 12-month rolling time period, as determined at the end of each calendar month. **(R 336.1205, R 336.1225, R 336.1702(a))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FGCOATING unless a malfunction abatement plan (MAP), as described in Rule 911(2), for the solvent recovery system (EUNMPCVY) is implemented and maintained. The MAP shall, at a minimum, specify the following:
 - a) A complete preventative maintenance program including identification of the title of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
 - b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
 - c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

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 336.1205, R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911)**

2. The permittee shall either maintain a minimum of 0.007 inches of water pressure differential between each PTE and the adjacent area on a continuous basis or maintain a facial velocity of 200 feet per minute through each natural draft opening of each PTE on a continuous basis. **(R 336.1205, R 336.1702(a), R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate FGCOATING unless the solvent recovery system (EUNMPCVY) is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the solvent recovery system includes maintaining operating parameters at the manufacturer's recommended specifications until an acceptable performance test has been performed, after which the operating parameters shall be maintained at the values during the most recent control device performance test which demonstrated compliance with a minimum 99 percent recovery efficiency. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1910)**
2. The permittee shall not operate each emission unit of FGCOATING unless the PTE is installed, maintained and operated in a satisfactory manner. Satisfactory operation requires the following:
 - a) The direction of the air flow at all times must be into the enclosure; and either
 - b) The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or
 - c) The pressure drop across the enclosure must be at least 0.007 inch H₂O.**(R 336.1702(a), R 336.1910)**

V. TESTING/SAMPLING

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

1. The permittee shall determine the VOC content, water content and density of any material, as applied, using federal Reference Test Method 24 or an alternative method approved by the AQD District Supervisor. Alternatively, the VOC content may be determined from manufacturer's formulation data or safety data sheets. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance. **(R 336.1205, R 336.1225, R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**
2. Within 365 days from commencement of operation of FGCOATING, the permittee shall verify the enclosure meets the definition of PTE or verify the capture efficiency of the enclosure, 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 51, Appendix M. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. 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 336.1910, R 336.2001, R 336.2003, R 336.2004)**
3. Within 365 days from commencement of operation of FGCOATING, the permittee shall verify the VOC recovery efficiency of EUNMPCVY, by testing at owner's expense, in accordance with Department requirements, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. The permittee must complete the test once every five years, thereafter. 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. Verification of destruction efficiency includes the submittal of a complete report of the test results, including calculations demonstrating the destruction efficiency, to the AQD within 60 days following the last date of the test. **(R 336.1205, R 336.1702, 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 336.1224, R 336.1225, R 336.1702(a), R 336.1910)**
2. The permittee shall record the operating parameters in the solvent recovery system (EUNMPRCVY) once per calendar day, as recommended by the manufacturer, while operating. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1910)**
3. The permittee shall keep the following information for EUCATCOAT:
 - a) Gallons (minus water and with water) of cathode slurry used, recorded on a daily basis, for each individual line and all lines combined.
 - b) The amount of NMP, in gallons, processed per 12-month rolling time period, as determined at the end of each calendar month.
 - c) VOC emission calculations determining the VOC content of the materials (minus water and with water) as applied on a daily basis, for each individual line.
 - d) VOC mass emission calculations determining the monthly emission rate in tons per calendar month, for each individual line and all lines combined.
 - e) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month, for each individual line and all lines combined.

The permittee shall keep the records using mass balance, or an alternative method and format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a) & (d))**

4. The permittee shall monitor and record, in a satisfactory manner, the air flow or pressure differential between each PTE portion of FGCOATING and the adjacent area, on a continuous basis, to verify that air is entering each PTE. Continuous air flow or pressure differential data recordings shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The permittee may demonstrate compliance based upon a three-hour average air flow or pressure differential. The permittee shall keep all records on file and make them available to the Department upon request. **(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 FGCOATING. **(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:

| Stack & Vent ID | Maximum Exhaust Diameter / Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|----------------------------|---|---|---|
| 1. SV-SRP | 94 | 50 | R 336.1225, 40 CFR 52.21(c) & (d) |

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the federal National Emissions Standards for Hazardous Air Pollutants for Paper and Other Web Coating as specified in 40 CFR Part 63, Subparts A and Subpart JJJJ. **(40 CFR Part 63 Subparts A and JJJJ)**

**FGCUTTING
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

All cutting processes controlled by dust collectors. Includes initial cutting and notching processes as well as any residual cutting from assembly process.

Emission Unit: EUANOCUT, EUCATCUT, EUASSEMBLY

POLLUTION CONTROL EQUIPMENT

Each emission unit is controlled by a dust collector to control particulate emissions.

I. EMISSION LIMIT(S)

1. There shall be no visible emissions from any stack in FGCUTTING. **(R 336.1301, R 336.1331, 40 CFR 52.21(c) & (d))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FGCUTTING unless the dust collectors are installed, maintained, and operated in a satisfactory manner. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**
2. The permittee shall not operate FGCUTTING unless a malfunction abatement plan (MAP), as described in Rule 911(2), for the dust collectors is implemented and maintained. The MAP shall, at a minimum, specify the following:
 - a) A complete preventative maintenance program including identification of the title of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
 - b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
 - c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

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 336.1205, R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a device to monitor the pressure drop for each dust collector in FGCUTTING on a continuous basis. **(R 336.1205, R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1910)**

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 continuously monitor and record the pressure drop for the FGCUTTING dust collectors, during operation, with instrumentation acceptable to the AQD District Supervisor. Continuous pressure drop recordings shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The permittee shall keep these records on file at the facility and make them available to the Department upon request. **(R 336.1301, R 336.1910)**
2. The permittee shall monitor the dust collector emission points to verify the filters are operating properly, by taking visible emission readings for FGCUTTING a minimum of once per calendar month, if operating. A "visible emissions reading" refers to a survey to be performed for the purpose of determining if there is the presence of visible emissions or if there are no visible emissions, other than uncombined water vapor. Visible emission readings shall be taken at least once per month, if operating, for one minute in duration, during daylight hours and during routine operating conditions. This can be performed by either a certified or non-certified reader. Such readings do not have to be conducted per the requirements of Method 9. Multiple stacks may be observed simultaneously. If any visible emissions (other than uncombined water vapor) are observed, the permittee shall inspect the filters and perform any required maintenance or shut down the affected operation within two hours of the visible emissions occurrence. **(R 336.1910)**
3. The permittee shall keep, in a satisfactory manner, records of all visible emission readings for FGCUTTING. At a minimum, records shall include the date, time, name of observer/reader, whether the reader is certified, status of visible emissions, and the type of maintenance performed. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1301, R 336.1303, R 336.1910)**
4. The permittee shall keep a record of all inspections and maintenance, and any corrective actions performed on the dust collectors, in accordance with the MAP. The permittee shall maintain this record on site and make it available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1301, R 336.1331, 40 CFR 52.21(c) & (d))**
5. The permittee shall keep documentation listing the manufacturer's specifications for the dust collectors, including the maximum allowable flow rate and guaranteed concentration of PM through the collectors. The permittee shall maintain this record on site and make it available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1301, R 336.1331, 40 CFR 52.21(c) & (d))**

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 FGCUTTING. **(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:

| Stack & Vent ID | Maximum Exhaust Diameter / Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|----------------------------|---|---|---|
| 1. SVDUST1 | 15 | 63 | 40 CFR 52.21(c) & (d) |
| 2. SVDUST3 | 9 | 63 | 40 CFR 52.21(c) & (d) |
| 3. SVDUST4 | 15 | 63 | 40 CFR 52.21(c) & (d) |

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

**FGFORMBLDG
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Formation Building operations including second electrolyte filling, formation, and degassing.

Emission Unit: EUELECFILLII, EUFORMDEGAS

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|------------------|--------------|---|------------------|------------------------------------|---|
| 1. VOC | 1.12 tpy | 12-month rolling time period as determined at the end of each month | FGFORMBLDG | SC VI.2 | R 336.1702(a) |

*VOC emissions are limited by the total energy output of the cells produced in EUELECFILLI, including the number and type of cells produced, the amount of electrolyte solution used, and the VOC content of the electrolyte solution.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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 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 336.1225, R 336.1702(a), R 336.1910)**
2. The permittee shall calculate the VOC emission rate from FGFORMBLDG monthly, for the preceding 12-month rolling time period, using a method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, 336.1702)**

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. SVFORMBLDG | 94.5 | 50 | R 336.1225, 40 CFR 52.21(c) & (d) |

IX. OTHER REQUIREMENT(S)

NA

| |
|---|
| FGNATGAS FLEXIBLE GROUP CONDITIONS |
|---|

DESCRIPTION

Various natural gas-fired equipment used throughout the Main Building and Formation Building.

Emission Unit: EUDOCKHEAT, EUAIRSUPPLY

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall burn only natural gas in each emission unit in FGNATGAS. **(R 336.1225, R 336.1702)**
2. The natural gas usage for FGNATGAS shall not exceed 230.52 MMscf per 12-month rolling time period as determined at the end of each month. **(R 336.1225, R 336.1702)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

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 keep natural gas usage records, in a format acceptable to the AQD District Supervisor, indicating the amount of natural gas combusted on a monthly and 12-month rolling time period, in million cubic feet per year, for FGNATGAS. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1225, R 336.1702)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA