

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

June 10, 2019

PERMIT TO INSTALL
113-03G

ISSUED TO
Il Stanley Company, Inc.

LOCATED AT
1500 Hill-Brady Road
Battle Creek, Michigan

IN THE COUNTY OF
Calhoun

STATE REGISTRATION NUMBER
N2137

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: April 22, 2019 | |
| DATE PERMIT TO INSTALL APPROVED: June 10, 2019 | SIGNATURE: |
| DATE PERMIT VOIDED: | SIGNATURE: |
| DATE PERMIT REVOKED: | SIGNATURE: |

PERMIT TO INSTALL

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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/EGLE/department | 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 |
| PM ₁₀ | Particulate Matter equal to or less than 10 microns in diameter |
| PM _{2.5} | 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 conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.
11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of Rule 301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with Rule 303 (R 336.1303). **(R 336.1301)**
 - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
 - b) A visible emission limit specified by an applicable federal new source performance standard.
 - c) A visible emission limit specified as a condition of this Permit to Install.
12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

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

| Emission Unit ID | Emission Unit Description (Including Process Equipment & Control Device(s)) | Installation Date / Modification Date | Flexible Group ID |
|-------------------------|--|--|--------------------------|
| EU-DECOSILVER | This emission unit consists of one (1) dry filter type paint spray booth and one (1) oven that are used to coat plastic automotive parts. | 12-18-2003 | NA |
| EU-ALUMINIZATION1 | A coating line consisting of a waterwash topcoat (TC) booth, and an electric TC oven. VOC emissions from this coating line are controlled by a regenerative thermal oxidizer (RTO) No.2. | 12-18-2003 / 05-30-2014 | FG-RTO-01and02 |
| EU-HARDCOAT3 | A coating line consisting of a waterwash booth, an infrared (IR) oven and an ultraviolet (UV) oven. VOC emissions from this coating line are controlled by RTO No. 1. | 12-18-2003 / 05-30-2014 | FG-RTO-01and02 |
| EU-DECO3 | A coating line consisting of turntable system and includes a basecoat booth with a robotic paint gun, and an electric oven. VOC emissions from this coating line are controlled by RTO No. 1. | 01-16-2014 / 05-30-2014 | FG-RTO-01and02 |
| EU-ANTIFOG | A coating line consisting of a rotary indexing table system and includes a basecoat booth with a robotic paint gun and an electric oven. VOC emissions from this coating line are controlled by RTO No. 2. | 01-16-2014 / 05-30-2014 | FG-RTO-01and02 |
| EU-HARDCOAT4 | A coating line consisting of a dry filter booth, an electric oven and an ultraviolet (UV) oven. VOC emissions from this coating line are controlled by RTO No.1. | 05-30-2014 | FG-RTO-01and02 |
| EU-ALUMINIZATION2(NEW) | A coating line consisting of a waterwash booth, an infrared (IR) oven and an ultraviolet (UV) oven. VOC emissions from this coating line are controlled by RTO No.1. | 05-30-2014 | FG-RTO-01and02 |
| EU-ALUMINIZATION17 | A coating line consisting of a waterwash booth, a paint kitchen, an infrared (IR) oven and an ultraviolet (UV) oven. VOC emissions from this coating line are controlled by RTO No. 2. | 10-15-2015 | FG-RTO-01and02 |
| EU-AFOG-02 | A plastic automotive parts coating line consisting of a waterwash booth, a paint kitchen, and an electric oven. VOC emissions from this coating line are controlled by RTO No. 2. | 6-29-2017 | FG-RTO-01and02 |

| Emission Unit ID | Emission Unit Description (Including Process Equipment & Control Device(s)) | Installation Date / Modification Date | Flexible Group ID |
|-------------------------|---|--|--------------------------|
| EUFLUIDCLEAN | Natural-gas fired Fluidized Bed Type parts cleaner that uses heated sand to mechanically and thermally remove coatings from coating line tooling and equipment. The exhaust from the fluidized sand travels through a direct-fire "afterburner" zone and a cyclone separator. | TBD | NA |

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

**EU-DECOSILVER
 EMISSION UNIT CONDITIONS**

DESCRIPTION

This emission unit consists of one (1) dry filter type paint spray booth and one (1) oven that are used to coat plastic automotive parts.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Particulate matter will be controlled by dry filter system.

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|--------------------------------|---------------------------------------|--|--|------------------------------------|---|
| 1. VOCs | 8.3 tpy | 12-month rolling time period as determined at the end of each calendar month | EU-DECOSILVER | SC VI.1, SC VI.3 | R 336.1702(a) |
| 2. VOC content of each coating | 6.15 lb/gal (minus water)* as applied | Daily volume-weighted average | Deco coating process of the EU-DECOSILVER | SC VI.1, SC VI.2, SC VI.3 | R 336.1702(a) |
| 3. VOC content of each coating | 5.0 lb/gal (minus water)* as applied | Daily volume-weighted average | Silver coating Type A process of the EU-DECOSILVER | SC VI.1, SC VI.2, SC VI.3 | R 336.1702(a) |
| 4. VOC content of each coating | 4.6 lb/gal (minus water)* as applied | Daily volume-weighted average | Silver coating Type B process of the EU-DECOSILVER | SC VI.1, SC VI.2, SC VI.3 | R 336.1702(a) |

^a The phrase "minus water" shall also include compounds which are used as organic solvents and which are excluded from the definition of volatile organic compound. **(R 336.1602(4))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. All waste coatings, solvents and catalysts shall be captured and stored in closed containers and shall be disposed of in an acceptable manner in compliance with all applicable rules and regulations. **(R 336.1702(a))**
2. The disposal of spent filters shall be performed in a manner which minimizes the introduction of air contaminants to the outer air. **(R 336.1224, R 336.1370)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the spray booth portions EU-DECOSILVER unless all respective exhaust filters are installed, maintained, and operated in a satisfactory manner. **(R 336.1224, R 336.1301, R 336.1910)**
2. The permittee shall equip and maintain EU-DECOSILVER with HVLP applicators or comparable technology with equivalent transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing. **(R 336.1702(a))**

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 coating, as applied and as received, using federal Reference Test Method 24. Upon prior approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance. (R 336.1225, R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))

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 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)
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, solvent and catalyst, including the weight percent of each component. The data may consist of Material 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(a))
3. The permittee shall keep the following information on a daily basis for the EU-DECOSILVER:
 - a) Gallons (with water) of each coating, solvent (including purge and clean-up), catalyst used and reclaimed.
 - b) VOC content (with water and minus water) of each coatings, solvent and catalyst as applied.
 - c) VOC emission calculations determining the volume-weighted average VOC content of each coating listed above in SC I.2 – SC I.4, as applied on a calendar day basis.
 - d) VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
 - 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.

The records are for the purpose of compliance demonstration and shall be kept using mass balance or an alternate method and format acceptable to the AQD Supervisor. All records shall be kept on file and made available to the Department upon request. (R 336.1225, 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. SV-DECOSILVER | 23 | 11 | R 336.1225, 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).

**EU-FLUIDCLEAN
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Natural-gas fired Fluidized Bed Type parts cleaner that uses heated sand to mechanically and thermally remove coatings from coating line tooling and equipment. The exhaust from the fluidized sand travels through a direct-fire “afterburner” zone and a cyclone separator.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

An afterburner zone for control of VOCs and smoke. A cyclone separator for the removal of particulate matter from the exhaust stream.

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|------------------|--------------|---|------------------|------------------------------------|---|
| 1. PM | 1.0 pph | Hourly | EUFLUIDCLEAN | SC V.1, SC VI.4, SC VI.5 | R 336.1331(1)(c) |
| 2. PM10 | 1.0 pph | Hourly | EUFLUIDCLEAN | SC V.1, SC VI.4, SC VI.5 | 40 CFR 52.21(c) & (d) |
| 3. PM2.5 | 1.0 pph | Hourly | EUFLUIDCLEAN | SC V.1, SC VI.4, SC VI.5 | 40 CFR 52.21(c) & (d) |

4. Visible emissions from EUFLUIDCLEAN shall not exceed a six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity. **(R 336.1301(1)(a), R 336.1910)**

II. MATERIAL LIMIT(S)

1. The permittee shall burn only natural gas in EU-FLUIDCLEAN. **(R 336.1225, R 336.1702(a))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee not shall process any material in EUFLUIDCLEAN other than cured paints on metal parts and tooling equipment from the coating lines. Such equipment includes, but is not limited to, racks, hangers, nozzle tips, extensions and caps, fixtures, conveyor parts, tubes, and pads.¹ **(R 336.1224, R 336.1225)**

2. The permittee shall not use EUFLUIDCLEAN for the thermal destruction or removal of rubber, plastics, uncured paints, or any other materials containing halogens (chlorine, fluorine, bromine, etc.) such as plastisol, polyvinyl chloride (PVC), or Teflon.¹ **(R 336.1224, R 336.1225)**

3. The permittee shall not operate EUFLUIDCLEAN unless the sand bed is preheated to 800°F before parts are loaded into the sand bed for processing. **(R 336.1224, R 336.1225, R 336.1702(a), R 336.1910)**

4. The permittee shall not operate EUFLUIDCLEAN unless the exhaust airflow during the thermal cleaning phase of the cleaning cycle is above 300°F. **(R 336.1224, R 336.1225, R 336.1702(a), R 336.1910)**

5. The permittee shall not operate EUFLUIDCLEAN for more than 2080 hours per rolling 12-month time period.¹ **(R 336.1225)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUFLUIDCLEAN unless the natural gas-fired afterburner zone and the cyclone system are installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes operating the sand bed and the air pollution control systems in accordance with the manufacturer's recommendations. **(R 336.1225, R 336.1301, R 336.1331, R 336.1702(a), R 336.1910, 40 CFR 52.21(c) and (d))**
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a negative pressure switch in the duct before the exhaust fan in the cyclone control system for EUFLUIDCLEAN on a continuous basis. **(R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) and (d))**
3. The permittee shall not operate EUFLUIDCLEAN unless the manufacturer's automatic temperature control system for the sand bed and exhaust air flow are installed, maintained and operated according to the manufacturer's specifications. **(R 336.1224, 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))**

1. Upon request of the AQD District Supervisor, the permittee shall verify PM, PM10, and PM2.5 emission rates from EUFLUIDCLEAN by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the Reference Test Method Table below. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. The hourly emission rate during testing shall be determined by the average of acceptable test runs per the method requirements. 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 336.1331, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

Reference Test Method Table

| Pollutant | Test Method Reference |
|------------------|---|
| PM | 40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules |
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

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 336.1224, R 336.1225, R 336.1301, R 336.1702, 40 CFR 52.21(c) and (d))**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material (cured coating, oil or grease) being removed in EUFLUIDCLEAN, including the weight percent of each component. The data may consist of Safety Data Sheets, manufacturer's formulation data, or both. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1702)**

3. The permittee shall monitor the cyclone control system for EUFLUIDCLEAN to verify proper operation by taking visible emission readings from the stack (i.e. SVFLUIDCLEAN) a minimum of once per calendar month. If visible emissions above 20% over a six-minute average are observed (other than uncombined water vapor), except for one six-minute average per hour of not more than 27 percent opacity, the permittee shall immediately inspect the cyclone control system and perform any required maintenance. **(R 336.1301, R 336.1910)**
4. The permittee shall keep, in a satisfactory manner, records of all visible emission readings for EUFLUIDCLEAN. At a minimum, records shall include the date, time, name of observer/reader, and status of visible emissions. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1301, R 336.1910)**
5. The permittee shall keep, in a satisfactory manner, records of the date, duration, and description of any malfunction, any maintenance performed, and any testing results for EUFLUIDCLEAN. The permittee shall keep the records on file and make them available to the Department upon request. **(R 336.1910, R 336.1911)**
6. The permittee shall keep records of the sand bed temperature and the exhaust air flow temperature of EUFLUIDCLEAN on a continuous basis for each batch of materials processed. Continuous temperature recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The permittee shall keep the records on file, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request. **(R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) and (d))**
7. The permittee shall keep records for operating hours of EUFLUIDCLEAN on a monthly and 12-month rolling time period.¹ **(R 336.1225)**

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 EU-FLUIDCLEAN. **(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. SVFLUIDCLEAN | 12 | 55 | R 336.1225, 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).

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 |
|------------------------|--|--------------------|--|
| FG-RTO-01and02 | Coating operations consisting of Regenerative Thermal Oxidizers (RTOs) No.1 and 2 to control VOC emissions from associated emission units. | | EU-ALUMINIZATION1, EU-HARDCOAT3, EU-DECO3, EU-ANTIFOG, EU-HARDCOAT4, EU-ALUMINIZATION2(NEW) , EU-ALUMINIZATION17, EU-AFOG-02 |
| | RTO No.1 | RTO No. 2 | |
| | EU-HARDCOAT3 | EU-ALUMINIZATION1 | |
| | EU-DECO3 | EU-ANTIFOG | |
| | EU-HARDCOAT4 | EU-ALUMINIZATION17 | |
| EU-ALUMINIZATION2(NEW) | EU-AFOG-02 | | |

**FG-RTO-01and02
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Coating Operations consisting of Regenerative Thermal Oxidizers (RTOs) No.1 and 2 to control VOC emissions from associated emission units.

Emission Unit: EU-ALUMINIZATION1, EU-HARDCOAT3, EU-DECO3, EU-ANTIFOG, EUHARDCOAT4, EU-ALUMINIZATION2(NEW), EU-ALUMINIZATION17, EU-AFOG-02

POLLUTION CONTROL EQUIPMENT

Two (2) Regenerative Thermal Oxidizers (RTOs) control VOC emissions, and particulate matter is controlled by either dry filter or water wash particulate control systems.

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|------------------|----------------------|--|---|------------------------------------|---|
| 1. VOC | 6.1 pph | Test Protocol* | FG-RTO-01and02 | SC V.2 | R 336.1702(a) |
| 2. VOC | 500 pounds per month | Calendar Month | EU-ALUMINIZATION1 | SC VI.1, SC VI.3 | R 336.1702(a) |
| 3. VOC | 3.3 tpy | 12-month rolling time period as determined at the end of each calendar month | EU-HARDCOAT3 | SC VI.1, SC VI.3 | R 336.1702(a) |
| 4. VOC | 4.7 tpy | 12-month rolling time period as determined at the end of each calendar month | EU-DECO3 | SC VI.1, SC VI.3 | R 336.1702(a) |
| 5. VOC | 5.3 tpy | 12-month rolling time period as determined at the end of each calendar month | EU-ANTIFOG | SC VI.1, SC VI.3 | R 336.1702(a) |
| 6. VOC | 3.8 tpy | 12-month rolling time period as determined at the end of each calendar month | EU-HARDCOAT4 | SC VI.1, SC VI.3 | R 336.1702(a) |
| 7. VOC | 3.2 tpy | 12-month rolling time period as determined at the end of each calendar month | EU-ALUMINIZATION2(NEW), EU-AFOG-02 (individually) | SC VI.1, SC VI.3 | R 336.1702(a) |
| 8. VOC | 2.9 tpy | 12-month rolling time period as determined at the end of each calendar month | EU-ALUMINIZATION17 | SC VI.1, SC VI.3 | R 336.1702(a) |

* Test protocol shall specify averaging time

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall capture all waste coatings, solvents and catalysts and shall store them in closed containers. The permittee shall dispose of all waste coatings, solvents and catalysts in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1224, R 336.1702(a))**
2. The permittee shall dispose of spent filters in a manner which minimizes the introduction of air contaminants to the outer air. **(R 336.1224, R 336.1370)**
3. The permittee shall not operate each emission unit associated with RTO No. 1 and 2 unless a malfunction abatement plan (MAP) as described in Rule 911(2) has been submitted within 90 days of permit issuance and is implemented and maintained. The MAP shall, at a minimum, specify the following:
 - a) A complete preventative maintenance program including identification 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.
 - d) A description of the procedures to capture, handle, and dispose of all materials to minimize the generation of fugitive emissions as required by above III.1.

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 AQD 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 336.1225, R 336.1702(a), R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any coating booth portion of FG-RTO-01and02 unless their respective dry filter or water wash particulate control systems are installed, maintained, and operated in a satisfactory manner. **(R 336.1224, R 336.1301, R 336.1910)**
2. The permittee shall equip and maintain each coating booth portion of FG-RTO-01and02 with HVLP applicators or comparable technology with equivalent transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing. **(R 336.1702(a))**
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of each thermal oxidizer to monitor and record the temperature on a continuous basis, during operation of FG-RTO-01and02. **(R 336.1702(a))**
4. The permittee shall not operate any emission unit associated with RTO No. 1 and 2 unless RTO No. 1 and 2 are installed, maintained and operated in a satisfactory manner. Satisfactory operation of RTO No. 1 and 2 includes a minimum VOC capture efficiency of 100 percent (by weight), a minimum VOC destruction efficiency of 95 percent (by weight) or a combined maximum VOC emission rate of 6.1 pph, a minimum temperature of 1400 °F, a minimum retention time of 0.5 seconds, and operating and maintaining the control device in accordance with an approved MAP as required in SC III.3. **(R 336.1205(1)(a)(ii), R 336.1225, R 336.1702(a), R 336.1910)**
5. The permittee shall not operate any portion of FG-RTO-01and02 unless the non-fugitive enclosures are installed, maintained and operated in a satisfactory manner. Satisfactory operation requires that the non-fugitive

enclosures are operating at a pressure lower than all adjacent areas, so that air flows into the non-fugitive enclosures through all natural draft openings (NDOs). NDO is defined as any opening that is not connected to a duct in which a fan or blower is installed. **(R 336.1225, 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 coating, as applied and as received, using federal Reference Test Method 24. Upon prior approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance. **(R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**
2. Upon request from the AQD District Supervisor, verification of capture efficiency, destruction efficiency and combined emission rate of RTO Nos. 1 and 2, by testing at owner's expense, in accordance with Department requirements, may be required. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD Technical Programs Unit and District Office. The final plan must be approved by the AQD prior to testing. Verification of capture and destruction efficiencies 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. **(R 336.1702(a), R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall verify on an annual basis, and within 90 days of any modification, the direction of air flow at each NDO is into the non-fugitive enclosure. The verification of the direction of air flow at the NDOs shall be conducted using the smoke tube test method, or an alternate method, approved the AQD District Supervisor. The permittee shall submit a notice of the anticipated test date to the District Office no later than 30 days prior to the test date and a complete test report shall be submitted to the District Supervisor within 30 days after the completion of the testing. All test methods, plans, and procedures shall be approved by the AQD prior to testing. **(R 336.1205, R 336.1702)**

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 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)**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, solvent and catalyst, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both. All records are for the purpose of compliance demonstration and shall be kept on file and made available to the Department upon request. **(R 336.1225, R 336.1702(a))**
3. The permittee shall keep the following information on a monthly basis for each emission unit in FG-RTO-01and02:
 - a) Identification of each coating line, associated RTO Number and air flow rate.
 - b) Gallons (with water) of each coating, solvent (including purge and clean-up) and catalyst used and reclaimed.
 - c) VOC content (with water) of each coating, solvent and catalyst as applied.
 - d) VOC mass emission calculations determining the monthly emission rate in pounds per calendar month.
 - 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.

The permittee shall keep the records using mass balance, or an alternative 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 336.1702(a))**

4. The permittee shall monitor, in a satisfactory manner, the temperature in the combustion chamber of each RTO in use on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. **(R 336.1702(a))**
5. The permittee shall keep records of the temperature from each RTO in use. If the temperature falls below 1400°F a deviation is deemed to have occurred. On a monthly basis, the permittee shall review these temperature records and prepare a list showing the date, time, and duration of all temperature deviations. All records shall be kept on file and made available to the Department upon request. **(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. SV-RTO-01 | 60 | 60 | R 336.1225, 40 CFR 52.21(c) & (d) |
| 2. SV-RTO-02 | 60 | 60 | R 336.1225, 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).

FGFACILITY CONDITIONS

DESCRIPTION: The following conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment and exempt equipment.

POLLUTION CONTROL EQUIPMENT

RTOs on emission units in FG-RTO-01and02, Direct-fire afterburner zone and cyclone separator for EUFLUIDCLEAN.

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|------------------------|--------------|--|------------------|------------------------------------|---|
| 1. Each Individual HAP | 8.9 tpy | 12-month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.2 | R 336.1205(3) |
| 2. Aggregate HAPs | 22.4 tpy | 12-month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.2 | R 336.1205(3) |
| 3. VOCs | 89.9 tpy | 12-month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.3 | R 336.1205(3) |

II. MATERIAL LIMIT(S)

NA

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))**

1. The permittee shall determine the HAP content of any material as applied and as received, using manufacturer's formulation data. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's HAP formulation data using EPA Test Method 311. **(R 336.1205(3))**
2. The permittee shall determine the VOC content, water content, and density of any material as applied and as received, using federal Reference Test Method 24. Upon prior written approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 and formulation values should differ, the permittee shall use the Method 24 results to determine compliance. **(R 336.1205(3))**

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 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(3))**

2. The permittee shall keep the following information on a monthly basis for FGFACILITY:
- Gallons or pounds of each HAP containing material used.
 - Where applicable, gallons or pounds of each HAP containing material reclaimed.
 - HAP content, in pounds per gallon or pounds per pound, of each HAP containing material used.
 - Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
 - Individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep records using mass balance, or an alternative 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(3))**

3. The permittee shall keep the following information on a monthly basis for FGFACILITY:
- Gallons or pounds of each VOC containing material used.
 - Where applicable, gallons or pounds of each VOC containing material reclaimed.
 - VOC content, in pounds per gallon or pounds per pound, of each VOC containing material used.
 - VOC emission calculations determining the monthly emission rate of each in tons per calendar month.
 - VOC emission calculations determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep records using mass balance, or an alternative 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(3))**

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:

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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