

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

January 6, 2016

PERMIT TO INSTALL
52-09B

ISSUED TO
Grupo Antolin Howell

LOCATED AT
3705 West Grand River Avenue
Howell Township, Michigan

IN THE COUNTY OF
Livingston

STATE REGISTRATION NUMBER
N2198

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

| | |
|--|------------|
| DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: December 16, 2015 | |
| DATE PERMIT TO INSTALL APPROVED: January 6, 2016 | SIGNATURE: |
| DATE PERMIT VOIDED: | SIGNATURE: |
| DATE PERMIT REVOKED: | SIGNATURE: |

PERMIT TO INSTALL

Table of Contents

| Section | Page |
|---|-------------|
| Alphabetical Listing of Common Abbreviations / Acronyms | 2 |
| General Conditions | 3 |
| Special Conditions | 5 |
| Special Conditions for EUPAINT | 5 |
| Flexible Group Summary Table | 9 |
| Special Conditions for FGFACILITY | 9 |

Common Abbreviations / Acronyms

| Common Acronyms | | Pollutant / Measurement Abbreviations | |
|---------------------------|--|---------------------------------------|---|
| AQD | Air Quality Division | acfm | Actual cubic feet per minute |
| BACT | Best Available Control Technology | BTU | British Thermal Unit |
| CAA | Clean Air Act | °C | Degrees Celsius |
| CAM | Compliance Assurance Monitoring | CO | Carbon Monoxide |
| CEM | Continuous Emission Monitoring | CO ₂ e | Carbon Dioxide Equivalent |
| CFR | Code of Federal Regulations | dscf | Dry standard cubic foot |
| COM | Continuous Opacity Monitoring | dscm | Dry standard cubic meter |
| Department/ department | Michigan Department of Environmental Quality | °F | Degrees Fahrenheit |
| EU | Emission Unit | gr | Grains |
| FG | Flexible Group | HAP | Hazardous Air Pollutant |
| GACS | Gallons of Applied Coating Solids | Hg | Mercury |
| GC | General Condition | hr | Hour |
| GHGs | Greenhouse Gases | HP | Horsepower |
| HVLP | High Volume Low Pressure* | H ₂ S | Hydrogen Sulfide |
| ID | Identification | kW | Kilowatt |
| IRSL | Initial Risk Screening Level | lb | Pound |
| ITSL | Initial Threshold Screening Level | m | Meter |
| LAER | Lowest Achievable Emission Rate | mg | Milligram |
| MACT | Maximum Achievable Control Technology | mm | Millimeter |
| MAERS | Michigan Air Emissions Reporting System | MM | Million |
| MAP | Malfunction Abatement Plan | MW | Megawatts |
| MDEQ | Michigan Department of Environmental Quality | NMOC | Non-methane Organic Compounds |
| MSDS | Material Safety Data Sheet | NO _x | Oxides of Nitrogen |
| NA | Not Applicable | ng | Nanogram |
| NAAQS | National Ambient Air Quality Standards | PM | Particulate Matter |
| NESHAP | National Emission Standard for Hazardous Air Pollutants | PM10 | Particulate Matter equal to or less than 10 microns in diameter |
| NSPS | New Source Performance Standards | PM2.5 | Particulate Matter equal to or less than 2.5 microns in diameter |
| NSR | New Source Review | pph | Pounds per hour |
| PS | Performance Specification | ppm | Parts per million |
| PSD | Prevention of Significant Deterioration | ppmv | Parts per million by volume |
| PTE | Permanent Total Enclosure | ppmw | Parts per million by weight |
| PTI | Permit to Install | psia | Pounds per square inch absolute |
| RACT | Reasonable Available Control Technology | psig | Pounds per square inch gauge |
| ROP | Renewable Operating Permit | scf | Standard cubic feet |
| SC | Special Condition | sec | Seconds |
| SCR | Selective Catalytic Reduction | SO ₂ | Sulfur Dioxide |
| SNCR | Selective Non-Catalytic Reduction | TAC | Toxic Air Contaminant |
| SRN | State Registration Number | Temp | Temperature |
| TEQ | Toxicity Equivalence Quotient | THC | Total Hydrocarbons |
| USEPA/EPA | United States Environmental Protection Agency | tpy | Tons per year |
| VE | Visible Emissions | µg | Microgram |
| | | µm | Micrometer or Micron |
| | | VOC | Volatile Organic Compounds |
| | | yr | Year |

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

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 Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal 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 R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
 - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
 - b) A visible emission limit specified by an applicable federal new source performance standard.
 - c) A visible emission limit specified as a condition of this Permit to Install.

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 R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

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

| Emission Unit ID | Emission Unit Description (Process Equipment & Control Devices) | Flexible Group ID |
|--|--|-------------------|
| EUPAINT | Paint line consisting of a flame treatment surface preparation booth, three (3) paint application booths, a cure oven, a paint mix room, and a purge/cleanup operation. VOC emissions from each booth and an oven are captured by using a Permanent Total Enclosure (PTE) and abated via a Regenerative Thermal Oxidizer (RTO). Each paint booth is equipped with water wash control system to control particulate matter. | FGFACILITY |
| Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290. | | |

The following conditions apply to: EUPAINT

DESCRIPTION: Paint line consisting of a flame treatment surface preparation booth, three (3) paint application booths, a cure oven, a paint mix room, and a purge/cleanup operation.

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT: Permanent Total Enclosure (PTE), Regenerative thermal oxidizer (RTO), and waterwash system.

I. EMISSION LIMITS

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Testing / Monitoring Method | Underlying Applicable Requirements |
|-----------|----------|--|-----------|-----------------------------------|--|
| 1. VOC | 37.5 tpy | 12-month rolling time period as determined at the end of each calendar month | EUPAINT | SC VI.3 | R 336.1702(a), R 336.1205 |

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall capture all waste coatings, cleanup solvents, *etc.* (materials) and shall store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1224, R 336.1702(a))**
2. The permittee shall handle all VOC and / or HAP containing materials, including coatings, reducers, solvents and thinners, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. **(R 336.1205, R 336.1224, R 336.1702(a))**

3. The permittee shall not operate EUPAINT unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted within 60 days after commencement of trial operation, 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 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 336.1702(a), R 336.1910, R 336.1911)**

4. The permittee shall maintain a minimum of 0.007 inches of water pressure differential between the PTE and the adjacent area on a continuous basis. **(R 336.1205, R 336.1702(a), R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate each booth portion of EUPAINT unless water wash particulate control is installed and operating in a satisfactory manner. **(R 336.1224, R 336.1301, R 336.1910)**
2. The permittee shall equip and maintain each booth portion of EUPAINT with electrostatic high volume low pressure (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 not operate EUPAINT unless the Regenerative Thermal Oxidizer (RTO) is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the RTO includes, a minimum VOC destruction efficiency of 95 percent (by weight), maintaining a minimum combustion zone temperature of 1450°F, or the minimum combustion zone temperature from the most recent acceptable stack test, and a minimum retention time of 0.5 seconds. **(R 336.1205, R 336.1702(a), R 336.1910)**
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of the RTO to monitor and record the temperature on a continuous basis, during operation of EUPAINT. **(R 336.1205, R 336.1702(a), R 336.1910)**
5. The permittee shall not operate EUPAINT unless the PTE is installed, maintained and operated in a satisfactory manner. Satisfactory operation requires that the PTE is operating at a pressure lower than all adjacent areas, so that air flows into the PTE through all natural draft openings (NDOs) to achieve a minimum VOC capture efficiency of 100 percent (by weight). NDO is defined as any opening that is not connected to a duct in which a fan or blower is installed. **(R 336.1205, R 336.1702(a), R 336.1910)**
6. The permittee shall install, calibrate, maintain and operate, in a satisfactory manner, a differential pressure gauge to monitor the pressure differential between the PTE for EUPAINT and the adjacent area on a continuous basis during operation of any portion of EUPAINT. **(R 336.1205, 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(a), R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**
2. Within 180 days after completion of trial operation, verification of the destruction efficiency of the RTO, by testing at owner's expense, in accordance with Department requirements will 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 the destruction efficiency of the RTO includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1205, R 336.1702(a), R 336.1910, 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 by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1225, R 336.1702(a))**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material (coating, reducer, etc.), 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 calendar month basis for EUPAINT:
 - a. Gallons (with water) of each coating, reducer, purge and clean-up solvent, *etc.* (material) used and reclaimed.
 - b. VOC content (with water) of each material as applied.
 - c. VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
 - d. 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 alternate 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 336.1702(a))**

4. The permittee shall monitor and record, in a satisfactory manner, the temperature in the RTO on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division. Continuous temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. 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), R 336.1910)**
5. The permittee shall monitor and record, in a satisfactory manner, the pressure differential between the PTE for EUPAINT and the adjacent area, on a continuous basis, to verify that air is entering the PTE. Continuous pressure differential data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205, 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 EUPAINT. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTIONS

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

| Stack & Vent ID | Maximum Exhaust Diameter/Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|--|---|---|---|
| 1. SV-Paint-K Kitchen (Paint Mix Room) | 10 | 40 | R 336.1225, 40 CFR 52.21(c) & (d) |
| 2. SV-Flame-Tx-Booth (Flame Treatment Surface Preparation Booth) | 12 | 40 | R 336.1225, 40 CFR 52.21(c) & (d) |
| 3. SV-RTO (RTO) | 30 | 40 | R 336.1225, 40 CFR 52.21(c) & (d) |

IX. OTHER REQUIREMENTS

NA

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 |
|-------------------|--|------------------------------|
| FGFACILITY | All process equipment source-wide including equipment covered by other permits, grand fathered equipment and exempt equipment. | |

The following conditions apply Source-Wide to: FGFACILITY

DESCRIPTION: All process equipment source-wide including equipment covered by other permits, grand fathered equipment and exempt equipment.

I. EMISSION LIMITS

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Testing / Monitoring Method | Underlying Applicable Requirements |
|------------------------|--------------------|--|------------|-----------------------------|------------------------------------|
| 1. Each Individual HAP | Less than 9.0 tpy | 12-month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.3 | R 336.1205(3) |
| 2. Aggregate HAPs | Less than 22.5 tpy | 12-month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.3 | R 336.1205(3) |

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

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 each coating, reducer, purge and clean-up solvent, etc. (material) as received and as applied, 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))**

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 maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of 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 336.1205(3))**
3. The permittee shall keep the following information on a calendar month basis for FGFACILITY:
 - a. Gallons or pounds of each HAP containing material used.
 - b. Where applicable, gallons or pounds of each HAP containing material reclaimed.
 - c. HAP content, in pounds per gallon or pounds per pound, of each HAP containing material used.
 - d. Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
 - e. 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 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(3))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA