

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

June 25, 2015

**PERMIT TO INSTALL  
105-15**

**ISSUED TO  
Monroe, LLC**

**LOCATED AT  
4490 44<sup>th</sup> Street SE  
Kentwood, Michigan**

**IN THE COUNTY OF  
Kent**

**STATE REGISTRATION NUMBER  
P0616**

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:<br><b>June 22, 2015</b> |            |
| DATE PERMIT TO INSTALL APPROVED:<br><b>June 25, 2015</b>                         | SIGNATURE: |
| DATE PERMIT VOIDED:  | SIGNATURE: |
| DATE PERMIT REVOKED:   | SIGNATURE: |

**PERMIT TO INSTALL**

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**Common Abbreviations / Acronyms**

| <b>Common Acronyms</b> |   | <b>Pollutant / Measurement Abbreviations</b> |  |
|------------------------|---|--|--|
| AQD                    | Air Quality Division                                      | BTU  | British Thermal Unit                       |
| BACT                   | Best Available Control Technology                         | °C   | Degrees Celsius                            |
| CAA                    | Clean Air Act   | CO   | Carbon Monoxide                            |
| CEM                    | Continuous Emission Monitoring                            | dscf   | Dry standard cubic foot                    |
| CFR                    | Code of Federal Regulations                               | dscm   | Dry standard cubic meter                   |
| CO <sub>2</sub> e      | Carbon Dioxide Equivalent                                 | °F   | Degrees Fahrenheit                         |
| COM                    | Continuous Opacity Monitoring                             | gr   | Grains                                     |
| EPA                    | Environmental Protection Agency                           | Hg   | Mercury                                    |
| EU                     | Emission Unit   | hr   | Hour                                       |
| FG                     | Flexible Group  | H <sub>2</sub> S                             | Hydrogen Sulfide                           |
| GACS                   | Gallon of Applied Coating Solids                          | hp   | Horsepower                                 |
| GC                     | General Condition   | lb   | Pound                                      |
| GHGs                   | Greenhouse Gases  | kW   | Kilowatt                                   |
| HAP                    | Hazardous Air Pollutant                                   | m  | Meter                                      |
| HVLP                   | High Volume Low Pressure *                                | mg   | Milligram                                  |
| ID                     | Identification  | mm   | Millimeter                                 |
| LAER                   | Lowest Achievable Emission Rate                           | MM   | Million                                    |
| MACT                   | Maximum Achievable Control Technology                     | MW   | Megawatts                                  |
| MAERS                  | Michigan Air Emissions Reporting System                   | ng   | Nanogram                                   |
| MAP                    | Malfunction Abatement Plan                                | NO <sub>x</sub>                              | Oxides of Nitrogen                         |
| MDEQ                   | Michigan Department of Environmental Quality (Department) | PM   | Particulate Matter                         |
| MSDS                   | Material Safety Data Sheet                                | PM10   | PM with aerodynamic diameter ≤10 microns   |
| NESHAP                 | National Emission Standard for Hazardous Air Pollutants   | PM2.5  | PM with aerodynamic diameter ≤ 2.5 microns |
| NSPS                   | New Source Performance Standards                          | pph  | Pounds per hour                            |
| NSR                    | New Source Review   | ppm  | Parts per million                          |
| PS                     | Performance Specification                                 | ppmv   | Parts per million by volume                |
| PSD                    | Prevention of Significant Deterioration                   | ppmw   | Parts per million by weight                |
| PTE                    | Permanent Total Enclosure                                 | psia   | Pounds per square inch absolute            |
| PTI                    | Permit to Install   | psig   | Pounds per square inch gauge               |
| RACT                   | Reasonably Available Control Technology                   | scf  | Standard cubic feet                        |
| ROP                    | Renewable Operating Permit                                | sec  | Seconds                                    |
| SC                     | Special Condition   | SO <sub>2</sub>                              | Sulfur Dioxide                             |
| SCR                    | Selective Catalytic Reduction                             | THC  | Total Hydrocarbons                         |
| SRN                    | State Registration Number                                 | tpy  | Tons per year                              |
| TAC                    | Toxic Air Contaminant                                     | µg   | Microgram                                  |
| TEQ                    | Toxicity Equivalence Quotient                             | VOC  | Volatile Organic Compound                  |
| VE                     | Visible Emissions   | yr   | Year                                       |

\* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (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**

**EMISSION UNIT SUMMARY TABLE**

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

| <b>Emission Unit ID</b>  | <b>Emission Unit Description<br/>(Process Equipment &amp; Control Devices)</b>   | <b>Installation Date /<br/>Modification Date</b> | <b>Flexible Group ID</b> |
|--|--|--|--------------------------|
| EUAutoPaint  | The automated paint line is a plastic parts coating line consisting of an enclosed parts conveyance system, a dry filter spray booth equipped with a robotic HVLP applicator, followed by an electric infrared cure oven, for some programs an off-line secondary infrared cure oven, and associated purge/cleanup solvents. | TBD  | FGPaint,<br>FGFacility   |
| EUTableBooth   | One manual table top paint spray booth equipped with HVLP applicator is used for testing colors on new programs. Associated purge/cleanup solvents.  | TBD  | FGPaint,<br>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. |  |  |                          |

**FLEXIBLE GROUP SUMMARY TABLE**

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

| <b>Flexible Group ID</b> | <b>Flexible Group Description</b>  | <b>Associated Emission Unit IDs</b> |
|--------------------------|--|-------------------------------------|
| FGPaint                  | An automated paint line and manual table top paint spray booth. Both lines are to paint plastic parts.                         | EUAutoPaint,<br>EUTableBooth        |
| FGFacility               | All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment. | NA                                  |

**The following conditions apply to: FGPaint**

**DESCRIPTION:** An automated paint line and manual table top paint spray booth. Both lines are to paint plastic parts.

**Emission Unit ID:** EUAutoPaint, EUTableBooth

**POLLUTION CONTROL EQUIPMENT:** Dry filters to control particulate matter

**I. EMISSION LIMITS**

| Pollutant                     | Limit        | Time Period / Operating Scenario   | Equipment | Testing / Monitoring Method     | Underlying Applicable Requirements |
|-------------------------------|--------------|--|-----------|---------------------------------|------------------------------------|
| 1. VOCs                       | 29.0 tpy     | 12-month rolling time period as determined at the end of each calendar month | FGPaint   | SC VI.1,<br>SC VI.2,<br>SC VI.3 | R 336.1702(d)                      |
| 2. Xylene (CAS No. 1330-20-7) | 103.6 lb/day | Calendar Day   | FGPaint   | SC VI.1,<br>SC VI.2,<br>SC VI.4 | R 336.1225(1)                      |

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall capture all waste paint, purge and cleanup solvent, etc. (material) 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 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 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(3), R 336.1224, R 336.1225, R 336.1702(a))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not operate each booth portion of FGPaint 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 each booth portion of FGPaint with HVLP applicator or comparable technology with equivalent transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing. **(R 336.1702(d))**

## **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 written 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))**

## **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 336.1225, R 336.1702)**
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 336.1225, R 336.1702)**
3. The permittee shall keep the following information on a calendar month basis for FGPaint:
  - a) Gallons (with water) of each 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 acceptable to the AQD District Supervisor in a 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(d))**
4. The permittee shall keep the following information on a calendar day basis for FGPaint:
  - a) Gallons (with water) of each xylene (CAS No. 1330-20-7) containing material used.
  - b) Where applicable, gallons (with water) of each xylene (CAS No. 1330-20-7) containing material reclaimed.
  - c) The xylene (CAS No. 1330-20-7) content (with water) in pounds per gallon or pounds per pound of each material used.
  - d) Xylene (CAS No. 1330-20-7) mass emission calculations determining the daily emission rate in pounds per calendar day.The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.<sup>1</sup> **(R 336.1225(1))**

## **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 FGPaint. **(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:

| <b>Stack &amp; Vent ID</b>             | <b>Maximum Exhaust Diameter/ Dimensions (inches)</b> | <b>Minimum Height Above Ground (feet)</b> | <b>Underlying Applicable Requirements</b> |
|--|--|---|---|
| 1. SV-AutoBooth<br>(Auto Booth)        | 24   | 40  | R 336.1225,<br>40 CFR 52.21(c) & (d)      |
| 2. SV-IRFlashOven<br>(IR Flash Oven)   | 10   | 40  | R 336.1225,<br>40 CFR 52.21(c) & (d)      |
| 3. SV-IRFinishOven<br>(IR Finish Oven) | 8  | 40  | R 336.1225,<br>40 CFR 52.21(c) & (d)      |

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

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

**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  | 9.0 tpy *  | 12-month rolling time period as determined at the end of each calendar month | FGFacility | SC VI.1, SC VI.3            | R 336.1205(3)                      |
| 2. Aggregate HAPs   | 22.5 tpy * | 12-month rolling time period as determined at the end of each calendar month | FGFacility | SC VI.1, SC VI.3            | R 336.1205(3)                      |
| 3. VOC  | 29.0 tpy   | 12-month rolling time period as determined at the end of each calendar month | FGFacility | SC VI.1, SC VI.4            | R 336.1702(d)                      |
| 4. Ethyl benzene (CAS No. 100-41-4)   | 5.8 tpy    | 12-month rolling time period as determined at the end of each calendar month | FGFacility | SC VI.1, SC VI.5            | R 336.1225(2)                      |
| * Beginning on issuance of this permit, and continuing for the first 12 calendar months, this limit applies to the cumulative total HAP emissions. Thereafter, the limit shall become a 12-month rolling limit. |            |  |            |                             |                                    |

**II. MATERIAL LIMITS**

NA

**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 any 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))**
2. 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 written 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(d), 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(3), R 336.1225(2), R 336.1702(d))**
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), R 336.1702(d))**
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 using mass balance or an alternate method acceptable to the AQD District Supervisor.
  - 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 using mass balance or an alternate method acceptable to the AQD District Supervisor.The permittee shall keep the records in a 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))**
4. The permittee shall keep the following information on a calendar month basis for FGFacility:
  - a) Gallons (with water) of each 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 from the coating of plastic parts.The permittee shall keep the records using mass balance or an alternate method acceptable to the AQD District Supervisor in a 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(d))**
5. The permittee shall keep the following information on a calendar month basis for FGFacility:
  - a) Gallons (with water) of each ethyl benzene (CAS No. 100-41-4) containing material used.
  - b) Where applicable, gallons (with water) of each ethyl benzene (CAS No. 100-41-4) containing material reclaimed.
  - c) The ethyl benzene (CAS No. 100-41-4) content (with water) in pounds per gallon or pound per pound of each material used.
  - d) Ethyl benzene (CAS No. 100-41-4) mass emission calculations determining the monthly emission rate in tons per calendar month.
  - e) Ethyl benzene (CAS No. 100-41-4) 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 in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.<sup>1</sup> **(R 336.1225(2))**

## **VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

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