

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

January 14, 2014

**PERMIT TO INSTALL**  
366-08B

**ISSUED TO**  
Jackson Metal Cleaning

**LOCATED AT**  
3507 Wayland Drive  
Jackson, Michigan

**IN THE COUNTY OF**  
Jackson

**STATE REGISTRATION NUMBER**  
N8188

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 3, 2013**

DATE PERMIT TO INSTALL APPROVED:

**January 14, 2014**

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                    | Malfuction 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> |
|-------------------------|---|--|--------------------------|
| EU-BURNOFF              | Jackson Oven Company burnoff oven for use in removing cured paints, grease, and oil and limited amounts of other materials including rubber, caster wheel polyurethane coatings, and ADH glass bonding material from metal parts by thermal decomposition in a primary chamber. The oven is equipped with a secondary chamber/afterburner control system. Both the primary chamber and the secondary chamber/afterburner are equipped with J-121A-3 burners rated at 375,000 BTU/hr each. | 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 336.1290.

**The following conditions apply to: EU-BURNOFF**

**DESCRIPTION:** Jackson Oven Company burnoff oven for use in removing cured paints, grease, and oil and limited amounts of other materials including rubber, caster wheel polyurethane coatings, and ADH glass bonding material from metal parts by thermal decomposition in a primary chamber. The oven is equipped with a secondary chamber/afterburner control system. Both the primary chamber and the secondary chamber/afterburner are equipped with J-121A-3 burners rated at 375,000 BTU/hr each.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT:** Afterburner control system

**I. EMISSION LIMITS**

NA

**II. MATERIAL LIMITS**

1. The permittee shall not exceed the material removal limits or the material content limits listed in the following table for EU-BURNOFF: (R 336.1205(3), R 336.1224, R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

| Material                              | Material Removal Limit (lbs/yr) | Time Period / Operating Scenario   | Chlorine Content Limit (wt%) | Sulfur Content Limit (wt%) |
|---------------------------------------|---------------------------------|--|------------------------------|----------------------------|
| a. Neoprene Rubber and Natural Rubber | 5,000                           | 12-month rolling time period as determined at the end of the each calendar month | 25                           | 1.8                        |
| b. Caster Wheel Polyurethane Coatings | 7,500                           | 12-month rolling time period as determined at the end of the each calendar month | 6                            | N/A                        |
| c. ADH Glass Bonding Materials        | 17,550                          | 12-month rolling time period as determined at the end of the each calendar month | N/A                          | N/A                        |

2. The permittee shall burn only natural gas in EU-BURNOFF. (R 336.1224, R 336.1225, R 336.1702, 40 CFR 52.21(c) & (d))
3. The permittee shall not process any material in EU-BURNOFF other than cured paints, oil or grease on metal parts, racks and/or hangers. <sup>1</sup> (R 336.1224, R 336.1225)

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not use EU-BURNOFF for the thermal destruction or removal of uncured paints, or any other materials containing bromine. <sup>1</sup> (R 336.1224, R 336.1225)
2. The permittee shall not load any transformer cores, which may be contaminated with PCB-containing dielectric fluid, wire or parts coated with lead or any waste materials such as paint sludge or waste powder coatings into EU-BURNOFF. <sup>1</sup> (R 336.1224, R 336.1225)

3. The permittee shall calibrate the thermocouples associated with the primary and secondary chambers at least once per year. **(R 336.1224, R 336.1225, R 336.1910)**

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not operate EU-BURNOFF unless the secondary chamber or afterburner is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the secondary chamber or afterburner includes maintaining a minimum temperature of 1400° F and a minimum retention time of 0.5 seconds. **(R 336.1224, R 336.1225, R 336.1301, R 336.1910)**
2. The permittee shall not operate EU-BURNOFF unless an automatic temperature control system for the primary chamber and secondary chamber or afterburner is installed, maintained and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1301, R 336.1910)**
3. The permittee shall not operate EU-BURNOFF unless an interlock system is installed, maintained and operated in a satisfactory manner that shuts down the primary chamber burner when the secondary chamber or afterburner is not operating properly. **(R 336.1224, R 336.1225, R 336.1301, R 336.1910)**

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

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

N/A

#### **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 records in a format acceptable to the AQD District Supervisor by the 15th 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 336.1301, R 336.1910)**
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to continuously monitor the temperature in the burnoff oven secondary chamber/afterburner and record the temperature at least once every 15 minutes. The permittee shall keep the records on file at the facility and make them available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1910)**
3. The permittee shall keep, in a satisfactory manner, records of the date, duration and description of any malfunction of the control equipment, each thermocouple calibration, and any maintenance performed for EU-BURNOFF. The permittee shall keep the records on file at the facility and make them available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1301, R 336.1910)**
4. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material (coating, oil, coolant, metal, etc.) processed in EU-BURNOFF, 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 the records on file at the facility, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request.<sup>1</sup> **(R 336.1224, R 336.1225)**

#### **VII. REPORTING**

1. Within 30 days after completion of the installation, construction, reconstruction, relocation or modification of EU-BURNOFF 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-BURNOFF. **(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 in the Post Frame Building 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. SVBURNOFF               | 16  | 28.5                                      | 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).