## NEW SOURCE REVIEW PERMIT TO INSTALL

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## Common Abbreviations / Acronyms Used in this Permit to Install

|        | Common Acronyms  | Pollutant/Measurement Abbreviations |  |  |
|--------|--|-------------------------------------|--|--|
| 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                         |  |
| COM    | Continuous Opacity Monitoring                              | °F                                  | Degrees Fahrenheit                               |  |
| EPA    | Environmental Protection Agency                            | gr                                  | Grains   |  |
| EU     | Emission Unit  | Hg                                  | Mercury  |  |
| GACS   | Gallon of Applied Coating Solids                           | hr                                  | Hour   |  |
| GC     | General Condition  | $H_2S$                              | Hydrogen Sulfide                                 |  |
| HAP    | Hazardous Air Pollutant                                    | HP                                  | Horsepower                                       |  |
| HVLP   | High Volume Low Pressure *                                 | lb                                  | Pound  |  |
| ID     | Identification   | 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                       | NOx                                 | Oxides of Nitrogen                               |  |
|        | Quality  |                                     |  |  |
| MSDS   | Material Safety Data Sheet                                 | PM                                  | Particulate Matter                               |  |
| NESHAP | National Emission Standard for Hazardous<br>Air Pollutants | PM-10                               | Particulate Matter less than 10 microns diameter |  |
| NSPS   | New Source Performance Standards                           | pph                                 | Pound 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   | Reasonable Available Control Technology                    | scf                                 | Standard cubic feet                              |  |
| SC     | Special Condition  | sec                                 | Seconds  |  |
| SCR    | Selective Catalytic Reduction                              | $SO_2$                              | Sulfur Dioxide                                   |  |
| SRN    | State Registration Number                                  | THC                                 | Total Hydrocarbons                               |  |
| TAC    | Toxic Air Contaminant                                      | tpy                                 | Tons per year                                    |  |
| VE     | Visible Emissions  | μg                                  | Microgram  |  |
|        |  | VOC                                 | Volatile Organic Compounds                       |  |
|        |  | yr                                  | Year   |  |
|        |  |                                     |  |  |
|        |  |                                     |  |  |

<sup>\*</sup> 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).

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#### **GENERAL CONDITIONS**

- 1. The process or process equipment covered by this permit shall not be reconstructed, relocated, altered, 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. [R336.1201(1)]
- 2. If the installation, reconstruction, relocation, or alteration 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 person to whom this permit was issued, or the designated authorized agent, shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, PO Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or alteration of the equipment allowed by this Permit to Install. [R336.1201(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 R336.1210, 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. [R336.1201(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. [R336.1201(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 R336.1219 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 R336.1219. The written request shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. [R336.1219]
- 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. [R336.1901]
- 7. The owner or operator of a source, process, or process equipment shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant in excess of standards for more than one hour, or of any air contaminant in excess of standards for more than two hours, as required in this rule, to the District Supervisor, Air Quality Division. The notice shall be provided no 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 District Supervisor within ten days, with the information required in this rule. [R336.1912]
- 8. Approval of this permit does not exempt the person to whom this permit was issued from complying with any future applicable requirements which may be promulgated under Part 55 of Act 451, PA 1994 or the Federal Clean Air Act.

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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 Act 451, PA 1994, 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 R336.1301, a person 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 R336.1303. [R336.1301]
  - 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 R336.1370(2). [R336.1370]
- 13. Except as allowed by Rule 285 (a), (b), and (c), permittee shall not substitute any fuels, coatings, nor raw materials for those described in the application and allowed by this permit, nor make changes to the process or process equipment described in the application, without prior notification to and approval by the Air Quality Division. [R336.1201(1)]
- 14. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R336.2001 and R336.2003, under any of the conditions listed in R336.2001. [R336.2001]

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### **SPECIAL CONDITIONS**

## **Emission Unit Identification**

| <b>Emission Unit ID</b>  | Emission Unit Description                            | Stack Identification |  |  |  |
|--|--|----------------------|--|--|--|
| EUADHESIVE   | Spray booth with manual air atomized applicators to  | SV-ADHESIVE          |  |  |  |
|  | apply adhesives to automotive interior door panels.  |                      |  |  |  |
|  | Cleanup emissions of acetone are included here also. |                      |  |  |  |
| Changes to the equipment described in this table are subject to the requirements of R336.1201, except as |  |                      |  |  |  |
| allowed by R336.1278 to R336.1290.   |  |                      |  |  |  |

## The following conditions apply to: EUADHESIVE

#### **Emission Limits**

|      | Pollutant | Equipment   | Limit         | Time Period           | Compliance<br>Method | Applicable<br>Requirements |
|------|-----------|-------------|---------------|-----------------------|----------------------|----------------------------|
| 1.1a | VOCs      | EU-ADHESIVE | 10.0 tons per | 12-month rolling time | S.C. 1.9             | R336.1702(a)               |
|      |           |             | year          | period as determined  |                      |                            |
|      |           |             |               | at the end of each    |                      |                            |
|      |           |             |               | calendar month        |                      |                            |
| 1.1b | Acetone   | EU-ADHESIVE | 11.0 tons per | 12-month rolling time | S.C. 1.9             | R336.1224                  |
|      |           |             | year          | period as determined  |                      |                            |
|      |           |             |               | at the end of each    |                      |                            |
|      |           |             |               | calendar month        |                      |                            |

#### **Material Limits**

|      | Pollutant | Equipment | Limit         | Time Period   | Compliance<br>Method | Applicable<br>Requirements |
|------|-----------|-----------|---------------|---------------|----------------------|----------------------------|
| 1.2a | VOCs      | 2.8       | lb/gal (minus | Instantaneous | S.C. 1.7 &           | R336.1702(a)               |
|      |           |           | water) as     |               | 1.8                  |                            |
|      |           |           | applied       |               |                      |                            |

### **Process / Operational Limits**

- 1.3 All waste coatings and cleanup solvents 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. [R336.1224, R336.1702(a)]
- 1.4 The disposal of spent filters shall be performed in a manner which minimizes the introduction of air contaminants to the outer air. [R336.1224, R336.1370]

## **Equipment**

- 1.5 The permittee shall not operate EUADHESIVE unless all respective exhaust filters are installed, maintained and operated in a satisfactory manner. [R336.1301, R336.1331, R336.1901, R336.1910]
- 1.6 The permittee shall equip and maintain the spray booth associated with EUADHESIVE with air atomized applicators or equivalent technology with comparable transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing. [R336.1702(a)]

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#### **Testing**

1.7 The VOC content, water content and density of any adhesive, as received and as applied, shall be determined using federal Reference Test Method 24. Upon prior written approval by the AQD District Supervisor, the VOC content may be determined from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the Method 24 results shall be used to determine compliance. [R336.1225, R336.1702(a)]

## **Recordkeeping / Reporting / Notification**

- 1.8 The permittee shall maintain a current listing from the manufacturer of the chemical composition of each adhesive, 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 for a period of at least five years and made available to the Department upon request. [R336.1224, R336.1225, R336.1702(a), R336.1901]
- 1.9 The permittee shall keep the following information on a monthly basis for the adhesive application and for the cleanup portions of EUADHESIVE:
  - a) Gallons (with water) of each adhesive used.
  - b) VOC content (minus water and with water) of each adhesive as applied.
  - c) Acetone content of each adhesive used.
  - d) Gallons of each cleanup solvent used and reclaimed.
  - e) VOC content, in pounds per gallon, of each cleanup solvent used.
  - f) Acetone content of each cleanup solvent used.
  - g) VOC mass emission calculations determining the monthly emission rate in tons per calendar month for each process separately, and for both processes combined.
  - h) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month for each process separately, and for both processes combined.
  - i) Acetone mass emission calculations determining the annual emission rate in tons per calendar month for each process separately, and for both processes combined.
  - j) Acetone mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month for each process separately, and for both processes combined.

The records are for the purpose of compliance demonstration and shall be kept in a format acceptable to the AQD Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1224, R336.1225, R336.1702(a), R336.1901]

# Stack / Vent Restrictions

|      | Stack & Vent ID   | Maximum<br>Diameter (inches) | Minimum Height Above<br>Ground Level (feet) | Applicable<br>Requirement                      |  |
|------|---|------------------------------|---|--|--|
| 1.10 | SVADHESIVE  | 34                           | 42  | R336.1225, R336.1901,<br>40 CFR 52.21(c) & (d) |  |
|      | The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air. |                              |   |  |  |