

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

January 8, 2004

**NEW SOURCE REVIEW PERMIT TO INSTALL**

No. 195-02A



**ISSUED TO**  
American Autocoat, Inc.

**LOCATED AT**  
3565 Highland Drive  
Hudsonville, Michigan 49426

**IN THE COUNTY OF**  
Ottawa

**STATE REGISTRATION NUMBER**

N7174

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 Part 5505(1) of Article II, Chapter I, Part 55 (Air Pollution Control) of P.A. 451 of 1994. 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: <b>12/4/2003</b>	
DATE PERMIT TO INSTALL APPROVED: <b>1/8/2004</b>	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

**PERMIT TO INSTALL**

**Table of Contents**

<b>Section</b>	<b>Page</b>
Alphabetical Listing of Common Abbreviations / Acronyms .....	2
General Conditions .....	3
Emission Unit Identification.....	5
Flexible Group Identification .....	5
Emission Unit Special Conditions.....	5
Flexible Group Special Conditions .....	9

**Common Abbreviations / Acronyms**

Common Acronyms		Pollutant/Measurement Abbreviations	
AQD	Air Quality Division	Btu	British Thermal Unit
ANSI	American National Standards Institute	°C	Degrees Celsius
BACT	Best Available Control Technology	CO	Carbon Monoxide
CAA	Clean Air Act	dscf	Dry standard cubic foot
CEM	Continuous Emission Monitoring	dscm	Dry standard cubic meter
CFR	Code of Federal Regulations	°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
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	NO <sub>x</sub>	Oxides of Nitrogen
MAP	Malfunction Abatement Plan	PM	Particulate Matter
MDEQ	Michigan Department of Environmental Quality	PM-10	Particulate Matter less than 10 microns diameter
MIOSHA	Michigan Occupational Safety & Health Administration	pph	Pound per hour
MSDS	Material Safety Data Sheet	ppm	Parts per million
NESHAP	National Emission Standard for Hazardous Air Pollutants	ppmv	Parts per million by volume
NSPS	New Source Performance Standards	ppmw	Parts per million by weight
NSR	New Source Review	psia	Pounds per square inch absolute
PS	Performance Specification	psig	Pounds per square inch gauge
PSD	Prevention of Significant Deterioration	scf	Standard cubic feet
PTE	Permanent Total Enclosure	sec	Seconds
PTI	Permit to Install	SO <sub>2</sub>	Sulfur Dioxide
RACT	Reasonable Available Control Technology	THC	Total Hydrocarbons
ROP	Renewable Operating Permit	tpy	Tons per year
SC	Special Condition Number	µg	Microgram
SCR	Selective Catalytic Reduction	VOC	Volatile Organic Compounds
SRN	State Registration Number	yr	Year
TAC	Toxic Air Contaminant		
VE	Visible Emissions		

\* 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. **[R336.1201(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, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification 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 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). **[R336.1912]**
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 R336.1301, 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 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. 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]**

**SPECIAL CONDITIONS**

**Emission Unit Identification**

<b>Emission Unit ID</b>	<b>Emission Unit Description</b>	<b>Stack Identification</b>
EU-AUTOLINE	Automotive plastic parts coating line consisting of a five-stage power washer, a natural-gas fired dry-off oven, a tack-off booth, adhesion promoter spray booth, flash-off tunnel, basecoat spray booth with ambient flash zone, clearcoat spray booth with heated flash zone, natural-gas fired bake oven, and a process/repair inspection booth, all connected by a chain-on-edge system. The tack-off booth, adhesion promoter booth, flash-off tunnel, basecoat spray booth with ambient flash zone, clearcoat spray booth with heated flash zone, and natural-gas fired bake oven are all controlled by a single regenerative thermal oxidizer. Clean-up and purge solvents used on the line are included in the emission unit and emission limits.	SV001A SV001B SV001C SV0002
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.		

**Flexible Group Identification**

<b>Flexible Group</b>	<b>Emission Units Included in Flexible Group</b>	<b>Stack Identification</b>
FG-FACILITY	All equipment at the stationary source including equipment covered by other permits, grandfathered equipment and exempt equipment.	N.A.

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

**Emission Limits**

	<b>Pollutant</b>	<b>Equipment</b>	<b>Limit</b>	<b>Time Period</b>	<b>Testing/ Monitoring Method</b>	<b>Applicable Requirements</b>
1.1a	VOCs and acetone combined*	EU-AUTOLINE	35.4 tpy	12-month rolling time period as determined at the end of each calendar month.	SC 1.12 & SC 1.13	R336.1205, R336.1224, R336.1702(a)
1.1b	VOCs and acetone combined*	EU-AUTOLINE	235.7 pounds per day	calendar day	SC 1.12 & SC 1.13	R336.1205, R336.1224, R336.1225, R336.1901

\* The emission limit includes coatings, reducers, and clean-up and purge solvents as demonstrated through record keeping in SC 1.13 and 1.14 with the mass emissions combined.

### **Process / Operational Limits**

- 1.2 The permittee shall recover and reclaim, recycle, or dispose of, in accordance with all applicable regulations, a minimum of 90 percent by weight of all purge solvents used for EU-AUTOLINE. **[R336.1224, R336.1702(a)]**
- 1.3 All waste coatings, reducers, and 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 the spray booth portions of EU-AUTOLINE unless all respective exhaust filters are installed and operating in a satisfactory manner. **[R336.1224, R336.1301, R336.1331, R336.1901, R336.1910]**
- 1.6 The permittee shall equip and maintain the spray booth portions of EU-AUTOLINE with robotic electrostatic bells or HVLP applicators or equivalent technology with comparable transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing. **[R336.1702(a)]**
- 1.7 The permittee shall not operate EU-AUTOLINE unless the regenerative thermal oxidizer is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the regenerative thermal oxidizer includes a minimum VOC capture efficiency of 96 percent (by weight), a minimum VOC destruction efficiency of 95 percent (by weight), and maintaining a minimum temperature of 1400 °F and a minimum retention time of 0.5 seconds. **[R336.1205, R336.1224, R336.1225, R336.1702, R336.1901, R336.1910]**

### **Testing**

- 1.8 The VOC content, water content, and density of any coatings, reducers, and solvents as applied and as received shall be determined using federal Reference Test Method 24. Upon prior 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, then the Method 24 results shall be used to determine compliance. **[R336.1205, R336.1224, R336.1225, R336.1702, R336.1901]**
- 1.9 Within five years after permit issuance, verification of VOC emission rates from EU-AUTOLINE, the capture efficiency across EU-AUTOLINE, and the destruction efficiency of the regenerative thermal oxidizer, by testing at owner's expense, in accordance with Department requirements, will be required. All testing shall be performed at maximum production rates using worst-case coating formulations. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates and satisfactory operation includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **[R336.1224, R336.1225, R336.1702(a), R336.2001, R336.2003, R336.2004, 40 CFR Part 60]**

### **Monitoring**

- 1.10 The permittee shall monitor, in a satisfactory manner, the temperature in the regenerative thermal oxidizer on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division. **[R336.1205, R336.1224, R336.1225, R336.1702, R336.1901]**

**Recordkeeping / Reporting / Notification**

1.11 The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coatings, reducers, and solvents, including the weight percent of each component. The data may consist of Material 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. **[R336.1224, R336.1225, R336.1702, R336.1901]**

1.12 The permittee shall keep the following information on a daily basis for the EU-AUTOLINE:

- a) Gallons (with water) of each coating and reducer used.
- b) VOC and acetone content, in pounds per gallon, of each coating and reducer as applied.
- c) VOC and acetone mass emission calculations determining the daily emission rate in pounds per calendar day.
- d) VOC and acetone mass emission calculations determining the monthly emission rate in tons per calendar month.
- e) VOC and 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.

The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1205, R336.1224, R336.1225, R336.1702, R336.1901]**

1.13 The permittee shall keep the following information on a daily basis for the use of purge and clean-up solvents associated with the EU-AUTOLINE:

- a) Gallons of each solvent used and reclaimed.
- b) VOC and acetone content, in pounds per gallon, of each solvent used.
- c) VOC and acetone mass emission calculations determining the daily emission rate in pounds per calendar day.
- d) VOC and acetone mass emission calculations determining the monthly emission rate in tons per calendar month.
- e) VOC and 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.

The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1205, R336.1224, R336.1225, R336.1702, R336.1901]**

1.14 The permittee shall keep, in a satisfactory manner, continuous records of the temperature in the regenerative thermal oxidizer. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1205, R336.1224, R336.1225, R336.1702, R336.1901]**

**Stack/Vent Restrictions**

	<b>Stack &amp; Vent ID</b>	<b>Maximum Diameter (inches)</b>	<b>Minimum Height Above Ground Level (feet)</b>	<b>Applicable Requirement</b>
1.15a	SV001a – Power wash exhaust	24	40	R336.1225, R336.1901, 40 CFR 52.21(c) & (d)
1.15b	SV001b – Power wash exhaust	24	40	R336.1225, R336.1901, 40 CFR 52.21(c) & (d)
1.15c	SV001c – Dry-off oven exhaust	12	40	R336.1225, R336.1901, 40 CFR 52.21(c) & (d)
1.15d	SV0002 – Oxidizer exhaust	40	40	R336.1225, R336.1901, 40 CFR 52.21(c) & (d)
The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.				

**The following conditions apply to: FG-FACILITY**

**Emission Limits**

	<b>Pollutant</b>	<b>Equipment</b>	<b>Limit</b>	<b>Time Period</b>	<b>Testing/ Monitoring Method</b>	<b>Applicable Requirements</b>
2.1a	Each Individual HAP	FG-FACILITY	Less than 9.0 tpy	12-month rolling time period as determined at the end of each calendar month.	SC 2.4	R336.1205(3)
2.1b	Aggregate HAPs	FG-FACILITY	Less than 22.5 tpy	12-month rolling time period as determined at the end of each calendar month.	SC 2.4	R336.1205(3)

**Testing**

2.2 The HAP content of any material as applied and as received shall be determined using manufacturer's formulation data. Upon request of the AQD District Supervisor, the manufacturer's HAP formulation data shall be verified using EPA Test Method 311. **[R336.1205(3)]**

**Recordkeeping / Reporting / Notification**

2.3 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. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1205(3)]**

2.4 The permittee shall keep the following information on a monthly basis for FG-FACILITY:

- a) Gallons or pounds of each material used.
- b) Where applicable, gallons or pounds of each material reclaimed.
- c) HAP content, in pounds per gallon or pounds per pound, of each 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 records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1205(3)]**