

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

JANUARY 19, 2006



**PERMIT TO INSTALL
NO. 198-01D**

**ISSUED TO
LANSING CRAFT CENTRE**

**LOCATED AT
2801 W SAGINAW
LANSING, MICHIGAN 48917**

**IN THE COUNTY OF
INGHAM**



**STATE REGISTRATION NUMBER
B1639**

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: 12/14/2005	
DATE PERMIT TO INSTALL APPROVED: 01/19/2006	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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Common Abbreviations / Acronyms

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
FG	Flexible Group	hr	Hour
GACS	Gallon of Applied Coating Solids	H ₂ S	Hydrogen Sulfide
GC	General Condition	hp	Horsepower
HAP	Hazardous Air Pollutant	lb	Pound
HVLP	High Volume Low Pressure *	m	Meter
ID	Identification	mg	Milligram
LAER	Lowest Achievable Emission Rate	mm	Millimeter
MACT	Maximum Achievable Control Technology	MM	Million
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts
MAP	Malfunction Abatement Plan	ng	Nanogram
MDEQ	Michigan Department of Environmental Quality	NO _x	Oxides of Nitrogen
MSDS	Material Safety Data Sheet	PM	Particulate Matter
NESHA	National Emission Standard for Hazardous Air Pollutants	PM-10	Particulate Matter less than 10 microns diameter
P		pph	Pounds per hour
NSPS	New Source Performance Standards	ppm	Parts per million
NSR	New Source Review	ppmv	Parts per million by volume
PS	Performance Specification	ppmw	Parts per million by weight
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonably Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO ₂	Sulfur Dioxide
SC	Special Condition Number	THC	Total Hydrocarbons
SCR	Selective Catalytic Reduction	tpy	Tons per year
SRN	State Registration Number	µg	Microgram
TAC	Toxic Air Contaminant	VOC	Volatile Organic Compound
TEQ	Toxicity Equivalence Quotient	yr	Year
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 AQD District Supervisor shall be notified, in writing, of a change in ownership or operational control of the stationary source or emission unit(s) authorized by this Permit to Install pursuant to R336.1219. The notification shall include all of the information required by R336.1219(1)(a) and (b). In addition, a new owner or operator must submit a written statement pursuant to R336.1219(1)(c), agreeing to and accepting the terms and conditions of this Permit to Install, and shall notify the AQD District Supervisor of any change in the contact person for this Permit to Install. **[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 nor does it affect any liability for past violations under the Natural Resources and Environmental Protection Act, 1994 PA 451.
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

Emission Unit ID	Emission Unit Description	Stack Identification
EU-Guidecoat	A guidecoat spray booth followed by a curing oven. Coatings are applied manually or automatically with conventional air atomized applicators or equivalent and automatically with electrostatic applicators or equivalent. The guidecoat booth is equipped with a wet eliminator system to control particulate emissions. VOC emissions from the automatic sections of the guidecoat booth are controlled by Thermal Oxidizer No. 5. VOC emissions from the guidecoat curing oven are controlled by Thermal Oxidizer No. 3.	224, 225, PS Flash, 227 – RTO #3, and RTO #5

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.

EU-Guidecoat
EMISSION UNIT CONDITIONS

DESCRIPTION

A guidecoat spray booth followed by a curing oven. The guidecoat coating is applied manually or automatically with conventional air atomized applicators or equivalent and automatically with electrostatic applicators or equivalent. The guidecoat booth is equipped with a wet eliminator system to control particulate emissions. VOC emissions from the automatic sections of the guidecoat booth are controlled by Thermal Oxidizer No. 5. VOC emissions from the guidecoat curing oven are controlled by Thermal Oxidizer No. 3.

Flexible Group ID: N/A – None

POLLUTION CONTROL EQUIPMENT

Thermal Oxidizer No. 3 and Thermal Oxidizer No. 5.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOCs	6.4 Lbs. Per GACS	Based Upon a Calendar Day Averaging Period.	EU-Guidecoat	SC V. 1 SC VI. 4	R336.1225, R336.1702(a), 40 CFR Part 52.21, 40 CFR Part 60 Subpart MM
2. VOCs	424.9 Pounds	Per Calendar Day	EU-Guidecoat	SC V. 1 SC VI. 4	R336.1225
3 VOCs	38.0 Tons	Per 12-Month Rolling Time Period	EU-Guidecoat	SC V. 1 SC VI. 4	R336.1225, R336.1702(a), 40 CFR Part 52.21
4. PM10	0.0053 Lbs Per 1000 Lbs	Instantaneous	EU-Guidecoat	GC 13	R336.1331, 40 CFR 52.21(c) & (d)
5. PM10	2.19 Pounds	Per Hour	EU-Guidecoat	GC 13	R336.1331, 40 CFR 52.21(c) & (d)
6. PM10	5.2 Tons	Per Year	EU-Guidecoat	GC 13	R336.1331, 40 CFR 52.21(c) & (d)

Notes: PM10: The lbs/1000 lbs of exhaust gases limit is a concentration limit which applies on a per stack basis. The lbs/hour and the tons/year limits are mass limits. The tons/calendar year limits are based upon a maximum yearly operations schedule of 4,805 hours per calendar year.

II. MATERIAL LIMIT(S)

1. The quantity of n-butyl acetate (CAS # 123-86-4) as specified in the Material Safety Data Sheets (MSDS) shall not exceed 1.0 percent by weight in any guidecoat coating or any associated reducer (except for those used for in-line repairs), as received from the supplier, used in EU-Guidecoat. **[R336.1225 & R336.1901]**
1. There shall be no detectable ethyl 3-ethoxy propionate (CAS # 763-69-9) specified in the MSDS in any guidecoat coating or any associated reducers (except for those used for in-line repairs), as received from the supplier, used in EU-Guidecoat. **[R336.1225 & R336.1901]**
2. None of the coatings and materials used in EU-Guidecoat shall contain any acetone and/or methyl acetate. **[R336.1224 & R336.1225]**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. All waste coatings and materials shall be captured and stored in closed containers and disposed of in an acceptable manner in compliance with all applicable state rules and federal regulations. **[R336.1225, R336.1702(a) & 40 CFR 52.21]**
2. The permittee shall comply with all applicable provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and MM, as they apply to FG-Guidecoat. **[40 CFR 60.390]**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the automatic guidecoat booth portion of EU-Guidecoat unless Thermal Oxidizer No. 5 is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the thermal oxidizer includes maintaining a minimum combustion chamber temperature of 1400 °F and a minimum retention time of 0.5 seconds. In lieu of a minimum temperature, an average temperature of 1400 °F based upon a three-hour rolling average may be used. **[R336.1225, R336.1702(a), R336.1910, 40 CFR 52.21, & 40 CFR Part 60 Subpart MM]**
2. The permittee shall not operate the guidecoat curing oven portion of EU-Guidecoat unless Thermal Oxidizer No. 3 is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the thermal oxidizer includes maintaining a minimum combustion chamber temperature of 1400 °F and a minimum retention time of 0.5 seconds. In lieu of a minimum temperature, an average temperature of 1400 °F based upon a three-hour rolling average may be used. **[R336.1225, R336.1702(a), R336.1910, 40 CFR 52.21, & 40 CFR Part 60 Subpart MM]**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R336.1213(3)(b)(ii))**

1. The VOC content of any coating or material as applied or as received, shall be determined using federal Reference Test Method 24 and formulation data as specified in the USEPA "Protocol for Determining the Daily Organic Compound Emission Rate of

automobile and Light-Duty Truck Topcoat Operations,” December 1988, EPA 450//3-88-018, as amended. **[R336.1702(a), R336.2001, R336.2003, R336.2004, & 40CFR 52.21]**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R336.1213(3)(b)(ii))**

1. Whenever production takes place, the permittee shall monitor the condition of the water wash eliminator system on a daily basis through visual inspection or through the use of low water level and/or low flow alarms. Records of the dates of inspections demonstrating adequate water level/flow and/or proper operation of the alarms, and of the maintenance and repair of the water wash eliminators shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1213(3), R336.1224, R336.1331, R336.1910, & 40 CFR 52.21(c) &(d)]**
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of Thermal Oxidizer Nos. 3 and 5 to monitor and record the temperature on a continuous basis, during operation of EU-Guidecoat. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. **[R336.1225, R336.1702(a), R336.1910, 40 CFR 52.21, & 40 CFR Part 60 Subpart MM]**
3. The permittee shall keep, in a satisfactory manner, operating temperature records for Thermal Oxidizer Nos. 3 and 5. If the measured operating temperature of Thermal Oxidizer Nos. 3 and/or falls below 1400 °F during operation of EU-Guidecoat, compliance may be demonstrated based upon a three-hour average temperature, by calculating the average operating temperature for each three hour period which includes one or more temperature readings below 1400 °F. All calculations and records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1225, R336.1702(a), R336.1910, 40 CFR 52.21, & 40 CFR Part 60 Subpart MM]**
4. For EU-Guidecoat, the permittee shall keep the following records in a format acceptable to the District Supervisor, Air Quality Division.
 - 1) The following records used to perform calculations in the publication entitled “Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-duty Truck Topcoat Operations”, EPA-450/3-88-018, or as amended (The EPA Protocol) shall be kept by the permittee.
 - a) For each coating used during the calendar month:
 - i) Coating identification.
 - ii) Analytical VOC content.
 - iii) Formulation VOC and volume solids content.
 - iv) Coating usage (daily or monthly).
 - v) Dilution solvent type, usage, and density.
 - b) Number of vehicles coated per production day by body style, coating color, and square footage coated (or equivalent unit), unless daily coating records are kept.
 - c) Transfer efficiency:
 - i) Value(s) used in protocol calculations.

- ii) Value(s) from most recent test.
 - iii) Annual review of operating conditions to demonstrate that the transfer efficiency remains valid.
- d) Oven exhaust control device VOC loading value:
- i) Value(s) used in protocol calculations.
 - ii) Value(s) from most recent test.
 - iii) Annual review of operating conditions to demonstrate that the oven exhaust control device loading value remains valid.
- e) Booth exhaust control device VOC capture efficiency:
- i) Value(s) used in compliance calculations.
 - ii) Value(s) from most recent test.
 - iii) Annual review of operating conditions to demonstrate that the booth exhaust control device VOC capture efficiency remains valid.
- f) Destruction efficiency of each oxidizer and, where applicable, the removal efficiency of each concentrator:
- i) Value(s) used in protocol calculations.
 - ii) Value(s) from most recent test.
- [R336.1225, R336.1702(a), 40 CFR 52.21, & 40 CFR Part 60 Subpart MM]**
- 2) Records of the number of days of operation per calendar month. **[R336.1225]**
- 3) The following records shall be calculated:
- a) Records of the VOC emission rate (pounds of VOC per gallon of applied coating solids) for each production day, which shall be determined by using the EPA protocol. **[R336.1702(a), 40 CFR 52.21, & 40 CFR Part 60 Subpart MM]**
 - b) Records of the VOC mass emission rate (pounds per day). **[R336.1225]**
 - c) Records of the VOC mass emission rate (tons per month and tons per 12-month rolling time period). **[R336.1225, R336.1702(a), & 40 CFR 52.21]**
- 4) Records of the chemical composition of each coating or material, including the weight percent of each component, as obtained from supplier data (e.g., Material Safety Data Sheet (MSDS), formulation data, etc.), shall be kept by the permittee. **[R336.1225 & R336.1901]**
- 5) Records of the number of gallons of in-line repair guidecoat coatings used per calendar month. **[R336.1901]**

As an alternative, the permittee may keep other records acceptable to the District Supervisor, Air Quality Division. All such records are for the purposes 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.

VII. REPORTING

NA

VII. STACK/VENT RESTRICTION(S)

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 Dimensions	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. 224	54 Inch Diameter	76	R336.1225, R336.1901, 40 CFR 52.21 Subparts (c) & (d)
2. 225	54 Inch Diameter	76	R336.1225, R336.1901, 40 CFR 52.21 Subparts (c) & (d)
3. PS Flash	18 Inch Diameter	69	R336.1225, R336.1901, 40 CFR 52.21 Subparts (c) & (d)
4. 227 – RTO #3	24 Inch Diameter	51	R336.1225, R336.1901, 40 CFR 52.21 Subparts (c) & (d)
5. RTO #5	48 Inch Diameter	70	R336.1225, R336.1901, 40 CFR 52.21 Subparts (c) & (d)