MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

March 14, 2003

PERMIT TO INSTALL

No. 14-03

ISSUED TO

Aqua Graphics, LLC

LOCATED AT

5571 Coral Ridge Drive Grand Blanc, Michigan 48439

> IN THE COUNTY OF Genesee

STATE REGISTRATION NUMBER N7215

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:

 3/5/2003

 DATE PERMIT TO INSTALL APPROVED:
 SIGNATURE:

 3/14/2003

 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_2S	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	NOx	Oxides of Nitrogen			
MDEQ	Michigan Department of Environmental Quality	PM	Particulate Matter			
MSDS	Material Safety Data Sheet	PM-10	Particulate Matter less than 10 microns diameter			
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pound 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	Reasonable Available Control Technology	sec	Seconds			
SC	Special Condition Number	SO ₂	Sulfur Dioxide			
SCR	Selective Catalytic Reduction	THC	Total Hydrocarbons			
SRN	State Registration Number	tpy	Tons per year			
TAC	Toxic Air Contaminant	μg	Microgram			
VE	Visible Emissions	VOC	Volatile Organic Compounds			
		yr	Year			

Common Abbreviations / Acronyms

* 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 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.
- 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), the 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]**

SPECIAL CONDITIONS

Emission Unit Identification

Emission Unit ID	Emission Unit Description	Stack Identification		
EUBASECOAT	A dry filter coating booth followed by a natural gas	SVBASECOAT		
	fired curing oven. Miscellaneous metal and plastic			
	parts, related to auto parts and other uses, are to be			
	processed for base coat application in this booth.			
EUCLEARCOAT	A dry filter coating booth followed by a natural gas	SVCLEARCOAT		
	fired curing oven. Miscellaneous metal and plastic			
	parts, related to auto parts and other uses, are to be			
	processed for clear coat application in this booth.			
EUFLASHOFF	Two flash-off areas after each of the coating booths,	NA		
	and an dry-off area at the end of the whole process.			
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

Flexible Group ID	Emission Units Included in Flexible Group	Stack Identification
FGCOATING	EUBASECOAT, EUCLEARCOAT, and	SVBASECOAT,
	EUFLASHOFF	SVCLEARCOAT
FGFACILITY	All equipment at the stationary source including	
	equipment covered by other permits, grandfathered	
	equipment and exempt equipment.	

The following conditions apply to: FGCOATING

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirements
1.1a	VOCs		34.9 tpy	12-month rolling time	SC 1.8 &	R336.1702(a)
				period as determined	SC 1.9	
				at the end of each		
				calendar month		
1.1b	Hexamethylene		0.0059	calendar day	SC 1.10	R336.1225
	di-isocyanate		pounds per			
	CAS #		day			
	822-06-0					

Process / Ope rational Limits

All waste coatings and other materials 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.
 [R336.1702(a)]

1.3 The disposal of spent filters shall be performed in a manner which minimizes the introduction of air contaminants to the outer air. **[R336.1370]**

Equipment

- 1.4 The permittee shall not operate EUBASECOAT and EUCLEARCOAT of FGCOATING unless all respective exhaust filters are installed, maintained and operated in a satisfactory manner. **[R336.1301, R336.1910]**
- 1.5 The permittee shall equip and maintain the EUBASECOAT and EUCLEARCOAT of FGCOATING with HVLP or equivalent technology with comparable transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing. **[R336.1702(a)**

Testing

1.6 The VOC content, water content, and density of any coating and other materials as applied and as received, 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]

Recordkeeping /Reporting /Notification

- 1.7 The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating and other 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. **[R336.1225, R336.1702]**
- 1.8 The permittee shall keep the following information on a monthly basis for FGCOATING:
 - a) Gallons (with water) of each coating and other material used.
 - b) VOC content (minus water and with water) of each coating and other 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.
 - e) Hours of operation.

The records 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. **[R336.1225, R336.1702]**

- 1.9 The permittee shall keep the following information on a monthly basis for the use of purge and clean-up solvents associated with FGCOATING:
 - a) Gallons of each solvent used and reclaimed.
 - b) VOC content, in pounds per gallon, of each solvent used.

- 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 records 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. **[R336.1225, R336.1702]**

- 1.10 The permittee shall keep the following information on a daily basis for FGCOATING:
 - a) Gallons (with water) of each HDI containing material used.
 - b) Where applicable, gallons (with water) of each HDI containing material reclaimed.
 - c) The HDI content (with water) in pounds per gallon of each material used.
 - d) HDI mass emission calculations determining the daily emission rate in pounds per calendar day and calendar month.

The records 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. **[R336.1225]**

Stack / Vent Restrictions

	Stack & Vent ID	Maximum	Minimum Height Above	Applicable	
	Stack & Vent ID	Diameter (inches)	Ground Level (feet)	Requirement	
1.11a	SVBASECOAT	36	36	R336.1225,	
				40 CFR 52.21(c) & (d)	
1.11b	SVCLEARCOAT	36	36	R336.1225,	
				40 CFR 52.21(c) & (d)	
	The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.				

The following conditions apply to: FGFACILITY

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirements
2.1a	EACH	FGFACILITY	Less than 9.0	12-month rolling time	SC 2.4	R336.1205(3)
	INDIVIDUAL		tons per year	period as determined		
	HAP			at the end of each		
				calendar month		
2.1b	Aggregate	FGFACILITY	Less than	12-month rolling time	SC 2.4	R336.1205(3)
	HAPs		22.5 tons per	period as determined		
			year	at the end of each		
				calendar month		

Emission Limits

Testing

2.2 The HAP content of any coating or other material as received and as applied, 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 coating or other 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 FGFACILITY:
 - 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 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)]**