

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

FEBRUARY 15, 2006



**PERMIT TO INSTALL**

NO. 481-94A

**ISSUED TO  
THE GRIFFON**

**LOCATED AT  
820 S BROTON  
MUSKEGON, MICHIGAN 49442**

**IN THE COUNTY OF  
MUSKEGON**



**STATE REGISTRATION NUMBER**

N5330

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: <b>12/15/2005</b>	
DATE PERMIT TO INSTALL APPROVED: <b>2/15/2006</b>	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
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 <sub>2</sub> 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 <sub>x</sub>	Oxides of Nitrogen
MSDS	Material Safety Data Sheet	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM-10	Particulate Matter less than 10 microns diameter
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 Number	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. **[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**

<b>Emission Unit ID</b>	<b>Emission Unit Description</b>	<b>Stack Identification</b>
EUDEGREASER	Batch vapor degreaser (Detrex Model #VS-800 electric-heated covered top) with a freeboard chiller system and no chlorinated solvents.	SVDEGREASER
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: EUDEGREASER**

**Emission Limits**

	<b>Pollutant</b>	<b>Equipment</b>	<b>Limit</b>	<b>Time Period</b>	<b>Testing/ Monitoring Method</b>	<b>Applicable Requirements</b>
1.1	VOC	EUDEGREASER	21 tpy	12-month rolling time period as determined at the end of each calendar month.	SC 1.6	R336.1205(3), R336.1225, R336.1702(a), R336.1901

**Material Usage Limits**

- 1.2 The permittee shall not use more than 3672 gallons of propyl bromide solvent, hereinafter "solvent", per year based on a 12-month rolling period as determined at the end of each calendar month. The permittee shall determine the amount of solvent used on a "net usage" basis. "Net usage" is defined as the amount of solvent added to EUDEGREASER to bring the solvent levels up to starting levels less any amount of solvent removed as waste. **[R336.1205(3), R336.1225, R336.1702(a), R336.1901]**
- 1.3 The permittee shall not use more than, on average, one gallon of solvent per hour. **[R336.1225]**

**Process/Operational Limits**

- 1.4 The permittee shall not operate EUDEGREASER except in compliance with the control requirements of Rule 708. The requirements include the items identified in Appendix A. **[R336.1708]**

**Recordkeeping/Reporting/Notification**

- 1.5 The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **[R336.1205(3), R336.1225, R336.1702(a), R336.1901]**
- 1.6 The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of the amount of solvent used each month and 12-month rolling time period. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. **[R336.1205(3), R336.1225, R336.1702(a), R336.1901]**

- 1.7 The permittee shall keep, in a satisfactory manner, the number of hours EUDEGREASER operates each month.
- 1.8 The permittee shall keep, in a satisfactory manner, calculations of the average hourly solvent usage rate for EUDEGREASER based on the monthly solvent usage records and the monthly hours of operation. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. **[R336.1205(3), R336.1225, R336.1702(a), R336.1901]**
- 1.9 The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of calculations of the VOC emissions for EUDEGREASER, as required by SC 1.1. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. **[R336.1205(3), R336.1225, R336.1702(a), 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 Requirements</b>
1.10	SVDEGREASER	8	40	R336.1225, R336.1901
The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.				

**APPENDIX A**  
**Control Requirements for Degreasers**

The permittee shall not operate EUDEGREASER except in compliance with the conditions of Rule 708. The conditions include the following:

Rule 708. (1) It is unlawful for a person to operate a new open top vapor degreaser unless all of the provisions of the following subrules are met or unless an equivalent control method is approved by the department.

(2) It is unlawful for a person to operate a new open top vapor degreaser unless at least 1 of the following conditions is met:

(a) The degreaser is designed such that the ratio of the freeboard height to the width of the degreaser is equal to or greater than 0.75. And if the degreaser opening is more than 10 square feet, the degreaser shall be designed with a powered or mechanically assisted cover.

(b) The degreaser is equipped with a refrigerated freeboard device.

(c) The degreaser is controlled by a carbon adsorption system with ventilation of more than 50 cubic feet per minute of air/vapor area when the cover is open and with exhaust of less than 25 parts of organic vapor per million parts of air averaged over one complete adsorption cycle.

(d) The degreaser is controlled by an equivalent control method approved by the department.

(3) It is unlawful for a person to operate a new open top vapor degreaser unless all of the following conditions are met:

(a) A cover shall be installed that is designed to be opened and closed easily without disturbing the vapor zone. The cover shall be closed at all times, except when processing workloads through the degreaser.

(b) A procedure shall be developed to minimize solvent carryout by doing all of the following:

(i) Racking parts to allow complete drainage.

(ii) Moving parts in and out of the degreaser at a vertical speed of less than 11 feet per minute when a powered hoist is used to raise or lower the parts.

(iii) Holding parts in the vapor zone not less than 30 seconds or until condensation ceases.

(iv) Tipping or tumbling parts in a manner such that no pools of organic solvent remain on the cleaned parts before removal.

(v) Allowing parts to dry within the degreaser for not less than 15 seconds or until visually dry.

(c) The following control devices shall be installed:

(i) A condenser flow switch and thermostat that shut off the sump heat if the condenser coolant is either not circulating or is too warm.

(ii) If equipped with spray, a spray safety switch that shuts off the spray pump if the vapor level drops excessively.

(iii) A vapor level control device that shuts off the sump heat if the solvent vapor level rises above the normal design level.

(d) The total workload shall not occupy more than 1/2 of the degreaser's open top area.

(e) Solvent shall not be sprayed above the vapor level.

(f) Solvent leaks shall be repaired immediately.

(g) The degreaser shall be operated in such a manner that no water is visibly detectable in solvent exiting the water separator.

(h) Exhaust ventilation shall not exceed 65 cubic feet per minute per square foot of degreaser open area, unless necessary to meet OSHA requirements.

(i) Waste solvent shall be stored only in closed containers, unless demonstrated to be a safety hazard and disposed of in a manner such that not more than 20 percent by weight is allowed to evaporate into the atmosphere.

(4) A person responsible for the provisions of this rule shall develop written procedures for the operation of all such provisions, and such procedures shall be posted in an accessible, conspicuous location near the vapor degreaser.

(5) The provisions of this rule shall not apply to an open top vapor degreaser having an air/vapor interface of less than ten square feet, if the degreaser complies with the provisions of subrules (3) and (4) of this rule.

(6) The provisions of this rule do not apply to a new open top vapor degreaser that is subject to the provisions of the halogenated solvent cleaner national emission standards for hazardous air pollutants (1995), which are adopted by reference in R 336.1651.