

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

June 30, 2003

**PERMIT TO INSTALL**

248-92T

**ISSUED TO**

M.L. Chartier, inc.

**LOCATED AT**

5792 Howel Road  
Otter Lake, Michigan

**IN THE COUNTY OF**

Lapeer

**STATE REGISTRATION NUMBER**

N3508

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>May 13, 2003</b>	
DATE PERMIT TO INSTALL APPROVED: <b>June 30, 2003</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
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
SC	Special Condition Number	tpy	Tons per year
SCR	Selective Catalytic Reduction	µg	Microgram
SRN	State Registration Number	VOC	Volatile Organic Compounds
TAC	Toxic Air Contaminant	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 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>
EUSOILUNIT	Low Temperature Thermal Desorption Portable Soil Remediation Unit	SVSOILUNIT
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: EUSOILUNIT**

**Emission Limits**

	<b>Pollutant</b>	<b>Equipment</b>	<b>Limit</b>	<b>Time Period</b>	<b>Testing/ Monitoring Method</b>	<b>Applicable Requirement</b>
1.1a	VOC	EUSOILUNIT	8.6 lb/hr	Testing protocol	SC 1.11 through 1.17	R336.1702(a)
1.1b	NOx	EUSOILUNIT	22.8 lb/hr	Testing protocol	GC 14	40 CFR 52.21 (c) and (d)
1.1c	CO	EUSOILUNIT	2.0 lb/hr	Testing protocol	GC 14	40 CFR 52.21 (d)
1.1d	SO <sub>2</sub>	EUSOILUNIT	12.9 lb/hr	Testing protocol	GC 14	40 CFR 52.21 (c) and (d)
1.1e	PM	EUSOILUNIT	4.8 lb/hr	Testing protocol	GC 14	40 CFR 52.21 (c) and (d)
1.1f	PM	EUSOILUNIT	0.1 lb per 1000 lbs of exhaust gas	Testing protocol	GC 14	R336.1331

**Visible Emission Limits**

1.2 Visible emissions from EUSOILUNIT shall not exceed a 6-minute average of 5% opacity, except as specified in Rule 301(1)(a). [R336.1301]

**Material Usage Limits**

1.3 The soil processing rate and associated VOC concentration listed in the following table shall be such that the influent VOC rate to the afterburner shall not exceed 430 pounds of VOC per hour. [R336.1702(a)]

	<b>Contamination Of soil by VOC's</b>	<b>Process Feed Rate (Maximum) tons/hr</b>	<b>Estimated VOC's</b>		
			<b>Inlet*</b>	<b>Outlet*</b>	<b>Outlet**</b>
	2%	10.8	430	8.6	31.0
	1%	21.5	430	8.6	31.0
	0.5%	43.0	430	8.6	31.0
	0.3%	77.0	430	8.6	31.0

\* lbs/hr

\*\* tons/year

- 1.4 The permittee shall not process any soils in the unit which contain chlorinated compounds, waste oil, or other materials except for gasoline and fuel oils. **[R336.1225]**

### **Process/Operational Limits**

- 1.5 The permittee shall not operate the emission unit unless the program for continuous fugitive emissions control for all plant roadways, the plant yard, all material storage piles, and all material handling operations is maintained--such that fugitive emissions do not exceed 5 percent opacity. **[R336.1371]**
- 1.6 The permittee shall not operate the emission unit unless a minimum temperature of 1,400 degrees Fahrenheit and a minimum retention time of 0.5 seconds in the thermal oxidizer is maintained. **[R336.1225, R336.1702(a), R336.1910]**
- 1.7 The permittee shall not operate the emission unit for more than 46 weeks per year. A written log of the hours of operation shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1205(b)(3)]**
- 1.8 The permittee shall immediately cease input feed of the soil to the unit, consistent with safe operating procedures, if the soil exit temperature from the dryer exceeds 1,000 degrees F. Input feed of soil to the unit shall not restart until the soil has been retested for hydrocarbon content, and mixed as necessary, to ensure compliance with the conditions of the permit. **[R336.1702(a)]**
- 1.9 The permittee shall not operate the emission unit unless the afterburner and baghouse are installed and operating properly. The baghouse shall be operated in accordance with the baghouse manufacturer's recommended guidelines. **[R336.1225, R336.1702(a), R336.1301]**

### **Equipment**

- 1.10 The permittee shall equip and maintain the baghouse with a pressure drop indicator. **[R336.1910]**

### **Monitoring**

- 1.11 The permittee shall test the soil daily prior to start-up of the unit for total hydrocarbon content by on-site hydrocarbon analyzer, and test results shall be kept for a period of at least five years and made available to the Air Quality Division upon request. **[R336.1702(a)]**
- 1.12 The permittee shall monitor the oxygen content, carbon monoxide content, and temperature of the exhaust gases from the unit afterburner on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division. All temperature data shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1910]**
- 1.13 The permittee shall monitor the soil exit temperature from the emission unit dryer on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division. All data shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request. **[R336.1702(a)]**
- 1.14 The permittee shall monitor, in a satisfactory manner, the baghouse pressure drop on a daily basis. **[R336.1301, R336.1331]**

### **Recordkeeping/Reporting/Notification**

- 1.15 The permittee shall keep, in a satisfactory manner, records of the soil VOC concentrations as monitored on a daily basis prior start-up of EUSOILUNIT. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1702(a)]**
- 1.16 The permittee shall record the oxygen content, carbon monoxide content, and temperature of the exhaust gases from the unit afterburner on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division. All temperature data shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1910]**
- 1.17 The permittee shall record the soil exit temperature from the emission unit dryer on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division. All data shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request. **[R336.1224]**
- 1.18 The permittee shall keep, in a satisfactory manner, a log of daily recordings of the baghouse pressure drop. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1301, R336.1331]**

**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>
1.19	SVSOILUNIT	48	34	40 CFR 52.21 (c) and (d), R336.1225
The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.				