NEW SOURCE REVIEW PERMIT TO INSTALL

Common Abbreviations / Acrony 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	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 Used in this Permit to Install

* 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, PO 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 Act 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. 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		
EUGROUNDWATER	Air stripping tower, pumps, equalization tanks, multi-	SVSTRP		
	media filtration system, and groundwater flow			
	distribution system.			
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: EUGROUNDWATER

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirement
1.1a	VOC	EUGROUNDWATER	0.25 tpy	12-month rolling	SC 1.4	R336.1225,
				time period as		R336.1702(a)
				determined at		
				the end of each		
				calendar month.		
1.1b	Trichloroethylene	EUGROUNDWATER	0.21 tpy	12-month	SC 1.4	R336.1225,
				rolling time		R336.1702(a)
				period as		
				determined at		
				the end of each		
				calendar month.		

Monitoring

1.2 The permittee shall monitor, in a satisfactory manner, the flow rate, the total VOC concentration, and the trichloroethylene concentration of the air stripper influent and effluent water streams. This shall be done on a weekly basis until four valid samples, which pass all quality assurance and quality control requirements, have been obtained, and then monthly for a period of five months. Thereafter, the air stripper influent and effluent water streams shall be monitored for these parameters on a quarterly basis. Total VOC concentrations shall be determined using the standard MDEQ groundwater analytical scans for VOCs. Any request for a change in the sampling frequency shall be submitted to the AQD District Supervisor for review and approval. **[R336.1225, R336.1702(a)]**

Recordkeeping/Reporting/Notification

1.3 The permittee shall record the flow rate, total VOC concentration, and the trichloroethylene concentration of the air stripper influent and effluent water streams. This shall be done on a weekly basis until four valid samples have been obtained, and then monthly for a period of five months. Thereafter, these parameters shall be recorded on a quarterly basis. All records, including calculation of VOC emission rates, shall be submitted to the AQD District Supervisor using Appendix A or an approved equivalent method, within 30 days following collection of the initial weekly data, and thereafter within 30 days following the end of the quarter in which the data were collected. Any request for a change in the

reporting frequency shall be submitted to the AQD District Supervisor for review and approval. [R336.1225, R336.1702(a)]

1.4 The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period calculations of VOC and trichloroethylene emission rates for EUGROUNDWATER. 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(a)]**

Stack/Vent Restrictions

	Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirements		
1.5	SVSTRP	12	26	R336.1225		
	The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.					

APPENDIX A Groundwater Remediation Emission Calculation and Recordkeeping

Source Name		Contact Person		
Location		County		
Recordkeeping Period		Permit Number	Pollutant(s)	
Start Date	End Date			

	Α	В	С	D	Ε
Date	Water Flow	Con	centration (p	VOC Emissions (lbs/hr)	
	(gal/min)	Inlet	Outlet	In - Out	
EXAMPLE	100	210	10	200	0.5
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EQUATIONS TO CALCULATE EMISSIONS:

D = B - C, all units in parts per million (ppm)

$$E \frac{lbs}{hr} = A \frac{gal}{min} \times 60 \frac{min}{hr} \times 8.34 \frac{lbs}{gal} \times D \times 10^{-6}$$

Signature:_____

Date:_____

Telephone Number:_____