

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

March 10, 2005
Revised April 20, 2005

NEW SOURCE REVIEW PERMIT TO INSTALL

124-04

ISSUED TO
USHER OIL COMPANY

LOCATED AT
9000 ROSELAWN AVENUE
DETROIT, MICHIGAN

IN THE COUNTY OF
WAYNE

STATE REGISTRATION NUMBER

M3727

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 Part 5505(1) of Article II, Chapter I, Part 55 (Air Pollution Control) of P.A. 451 of 1994. 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: July 8, 2004	
DATE PERMIT TO INSTALL APPROVED: March 10, 2005	SIGNATURE: G. VINSON HELLWIG
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
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 ₂ 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 _x	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 ₂	Sulfur Dioxide
RACT	Reasonable Available Control Technology	THC	Total Hydrocarbons
ROP	Renewable Operating Permit	tpy	Tons per year
SC	Special Condition Number	µg	Microgram
SCR	Selective Catalytic Reduction	VOC	Volatile Organic Compounds
SRN	State Registration Number	yr	Year
TAC	Toxic Air Contaminant		
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

Emission Unit ID	Emission Unit Description	Stack Identification
EUOIL-TMT	Non hazardous used oil treatment process that removes water and other contaminants from used oil. The process equipment includes three 20,000 gallon used oil treatment tanks (Tanks A, B, and C) and one 120,000 gallon used oil receiving pit (Pit 2). Emissions from the process are controlled via a common packed bed caustic scrubber.	SVSCRUBBER
EUWASTEWATER-TMT	Two 20,000 gallon waste water receiving pits (Pits 3 and 4). Emissions from the waste water receiving pits are controlled via a common packed bed caustic scrubber.	SVSCRUBBER
EURPP-TMT	Recycled petroleum products (RPP) treatment operation. Vapor balance is used when fuel/water mixture is transferred from delivery trucks into RPP storage tanks.	NA
FGFACILITY	EUOIL-TMT EUWASTERWATER-TMT EURPP-TMT Entire facility, including plant roadways.	NA
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: EUOIL-TMT

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirement
1.1a	VOCs	EUOIL- TMT	0.45 lb/hr	Testing Protocol	GC 13, SC 1.4, 1.15	R336.1702(a)
1.1b	Hydrogen sulfide	EUOIL- TMT	0.03 lb/hr	Testing Protocol	GC 13, SC 1.4, 1.15, 1.21	R336.1225, R336.1901

Visible Emission Limits

- 1.2 There shall be no visible emissions from EUOIL-TMT. [R336.1301]
- 1.3 Visible emissions from the roadways associated with EUOIL-TMT shall not exceed five percent opacity. [R336.1371]

Material Usage Limits

- 1.4 The permittee shall not process more than 7,000,000 gallons per month of used oil, on a 12-month rolling time period, through Tanks A, B, and C. [R336.1901]

Process/Operational Limits

- 1.5 The permittee shall not accept any United States EPA or State Of Michigan listed hazardous wastes. **[R336.1225]**
- 1.6 The permittee shall not sparge more than one 20,000 gallon used oil treatment tank (Tanks A, B, and C) nor more than one waste water receiving pit (Pits 3 and 4), at any time. Dampers to all pits and tanks shall be in the open position during cleaning and maintenance in accordance with the Malfunction Abatement Plan (MAP). Manways and hatches shall be closed except during inspection, cleaning, and maintenance of the pits and tanks. **[R336.1901, R336.1910]**
- 1.7 There shall be no drying of separated oil. **[R336.1702(a), R336.1901]**
- 1.8 The permittee shall not accept any oil with a polychlorinated biphenol (PCB) concentration greater than 50 parts per million (ppm). **[R336.1225]**
- 1.9 Introduction of acid or caustic to the used oil or waste water shall take place below the surface of the tank opening. **[R336.1225, R336.1901]**
- 1.10 The used oil receiving pit (Pit 2) and the waste water receiving pits (Pit Nos. 3 and 4) shall be sealed in such a manner as to prevent fugitive odorous emissions from escaping to the ambient atmosphere. **[R336.1901]**
- 1.11 The permittee shall submit to the AQD District Supervisor within 60 days of permit issuance, for review and approval, a Malfunction Abatement Plan for the packed bed scrubber. This plan may be revised, periodically, subject upon approval by the AQD District Supervisor. **[R336.1901, R336.1910]**
- 1.12 The permittee shall not operate EUOIL -TMT unless the program for ongoing fugitive emissions control for all plant roadway, the plant yard, all material storage piles, and all material handling operations specified in Appendix A has been implemented and maintained. **[R336.1371, R336.1372, Act 451 324.5524]**
- 1.13 The permittee shall not operate EUOIL-TMT unless the temperature of the material in the processing tanks and pits remains at or below 180°F. **[R336.1702(a), R336.1901]**
- 1.14 The permittee shall not operate EUOIL-TMT unless the vapor collection system which connects the used oil receiving pit (Pit 2) and used oil treatment tanks (A, B, and C) with the scrubber is operating properly. Proper operation shall be defined in the Malfunction Abatement Plan (MAP) for the scrubber. **[R336.1901, R336.1910]**

Equipment

- 1.15 The permittee shall not operate EUOIL-TMT unless this equipment is vented to the caustic packed bed scrubber which is installed and operated properly. Satisfactory operation includes maintaining the following conditions in the scrubber: **[R336.1702(a), R336.1901, R336.1910]**
 - (a) Scrubber liquid pH at 10.5 or higher,
 - (b) scrubber liquid sodium hypochlorite concentration at 1.5 percent by weight or higher,
 - (c) scrubber liquid flow rate at a minimum of 135 gallons per minute.
- 1.16 The permittee shall not operate EUOIL-TMT unless, within 180 days of permit issuance, the used oil receiving pit (Pit 2) and the used oil treatment tanks (Tanks A, B, and C) are operated under negative pressure as described in the MAP. **[R336.1901]**

- 1.17 Within 180 days of permit issuance, the permittee shall equip the manifold that connects the vapor collection system (i.e. the used oil treatment tanks, the used oil receiving pit (Pit 2), the waste water receiving pits (Pits 3 and 4), and used oil storage tank No. 8, when it is heated) to the packed-bed caustic scrubber with pressure monitoring devices capable of reading static pressure in increments of 0.1 inch of water. **[R336.1901, R336.1910]**
- 1.18 Within 180 days of permit issuance, the permittee shall equip the manifold connecting various process equipment to the caustic scrubber with an alarm system that signals whenever the scrubber system loses its negative pressure. **[R336.1910]**
- 1.19 The permittee shall not operate tank Nos. 5, 6, 7, 9, 10, 11, 12, 19, 20, 21, 22, and 23, unless, within 180 days of permit issuance, fugitive odorous vapors from these tanks are minimized in accordance with the MAP. **[R336.1901]**
- 1.20 The permittee shall not unload used-oil from the delivery trucks unless, within 180 days of permit issuance, fugitive odorous vapors from the trucks are minimized in accordance with the MAP. **[R336.1901]**

Testing

- 1.21 Verification and quantification of odor emissions from SVSCRUBBER, by testing at owner's expense, in accordance with Department requirements, will be required for continued operation. Within 60 days after permit issuance, a complete stack sampling and odor threshold analysis plan using the Dynamic Dilution Method shall be submitted to the AQD. The stack sampling plan shall include provisions for various fuel usages, plant operating conditions, and odor neutralizer system operation (if any). The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **[R336.1901, R336.2001, R336.2003, R336.2004]**

Monitoring

- 1.22 The permittee shall install, calibrate, maintain and operate, in a satisfactory manner, devices to monitor the following operating parameters, as noted: **[R336.1702(a), R336.1901, R336.1910]**
- (a) Scrubber liquid pH, on a continuous basis,
 - (b) scrubber liquid hypochlorite concentration, a minimum of once per operating day,
 - (c) scrubber liquid flow rate, a minimum of once per shift.
- 1.23 The permittee shall install, calibrate, maintain and operate, in a satisfactory manner, a device to monitor the highest used oil processing temperature during each batch. **[R336.1702(a), R336.1901]**
- 1.24 Within 180 days of permit issuance, the permittee shall calibrate, maintain and operate, in a satisfactory manner, a pressure monitoring device in the manifold to monitor the static pressure for the following process equipment: used oil receiving pit (Pit 2), used oil treatment tanks (Tanks A, B, and C), waste water receiving pits (Pits 3 and 4), and used oil storage tank No. 8- unless Tank No. 8 is not being heated. **[R336.1910]**

Recordkeeping/Reporting/Notification

- 1.25 The permittee shall keep, in a satisfactory manner, records of the monitored scrubber liquid pH, scrubber liquid hypochlorite concentration, and scrubber liquid flow rate. All records shall be kept of file for at least five years and made available to AQD upon request. **[R336.1702(a), R336.1901, R336.1910]**
- 1.26 A written log shall be kept for the loads received, which shall include the used oil generator. A log shall be kept containing the amount of material processed in the used oil treatment tanks (Tanks A, B, and C), and contain the amount and type of chemicals used in the processing (heating) time. This log shall be kept on file for a period of at least five years and shall be made available to AQD upon request. **[R336.1702(a), R336.1901]**
- 1.27 The permittee shall keep, in a satisfactory manner, records of the highest used oil processing temperature observed per batch. 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), R336.1901]**
- 1.28 Within 180 days of permit issuance, the permittee shall keep, in a satisfactory manner, a log of static pressure as specified in the MAP. **[R336.1901, R336.1910]**
- 1.29 The permittee shall keep, in a satisfactory manner, a record of times when sparging more than one 20,000 gallon used oil treatment tank (Tank A, B, or C) or more than one waste water receiving pit (Pits 3 or 4) simultaneously. Also, the permittee shall report, in writing, to the AQD District Supervisor, within thirty days of the event, an account of the sparging episode. **[R336.1901, R336.1910]**

Stack/Vent Restrictions

	Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirement
1.30	SVSCRUBBER	18	75	R336.1901
The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.				

The following conditions apply to: EUWASTEWATER-TMT

Equipment

- 2.1 The permittee shall not operate the EUWASTEWATER-TMT unless this equipment is vented to the caustic packed bed scrubber which shall be installed and operated properly. Satisfactory operation includes maintaining the following conditions as described in Special Condition (SC) 1.15. [R336.1702(a), R336.1901, R336.1910]

Monitoring

- 2.2 The permittee shall install, calibrate, maintain and operate, in a satisfactory manner, devices to monitor and record the operating parameters as described in SC 1.15. [R336.1702(a), R336.1901, R336.1910]

Recordkeeping/Reporting/Notification

- 2.3 The permittee shall keep, in a satisfactory manner, records as described in SC 1.24. 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), R336.1901]

The following conditions apply to: EURPP-TMT

Material Usage Limits

- 3.1 The permittee shall not process more than 3,000,000 gallons per year of fuel/water mixture in EURPP-TMT. [R336.1702(a), R336.1901]

Equipment

- 3.2 The permittee shall not operate EURPP-TMT unless the vapor balance system for the loading operations is installed, maintained, and operated in a satisfactory manner. [R336.1702(a), R336.1901]

Recordkeeping/Reporting/Notification

- 3.3 The permittee shall keep, in a satisfactory manner, daily records of fuel/water mixture throughput. 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), R336.1901]

Appendix A

I. Site Roadways and the Plant Yard

- (a) The dust on the site roadways and the plant yard shall be controlled by applications of water, calcium chloride or other acceptable and approved fugitive dust control compounds. Applications of dust suppressants shall be done as often as necessary to meet an opacity limit of five percent.
- (b) All paved roadways and the plant yards shall be swept as needed between applications of dust suppressants.
- (c) Any material spillage on roads shall be cleaned up immediately.
- (d) A record of all applications of dust suppressants and roadway and plant yard sweepings shall be kept on file for the most recent five-year period and be made available to the AQD upon request.

II. AQD/MDEQ Inspection

The provisions and procedures of this plan are subject to adjustment by written notification from the AQD, if following an inspection, the AQD finds the fugitive dust requirements and/or the permitted opacity limits are not being met.