

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

February 14, 2007

**PERMIT TO INSTALL
No. 269-04B**

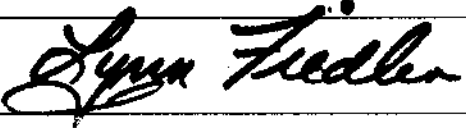
**ISSUED TO
EQ Detroit, Inc.**

**LOCATED AT
1923 Frederick Street
Detroit, Michigan 48211**

**IN THE COUNTY OF
Wayne**

**STATE REGISTRATION NUMBER
M4545**

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: 10/23/2006	
DATE PERMIT TO INSTALL APPROVED: 2/14/2007	SIGNATURE: 
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	ng	Nanogram
MAP	Malfunction Abatement Plan	NO _x	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality	PM	Particulate Matter
MIOSHA	Michigan Occupational Safety & Health Administration	PM-10	Particulate Matter less than 10 microns diameter
MSDS	Material Safety Data Sheet	pph	Pound per hour
NESHAP	National Emission Standard for Hazardous Air Pollutants	ppm	Parts per million
NSPS	New Source Performance Standards	ppmv	Parts per million by volume
NSR	New Source Review	ppmw	Parts per million by weight
PS	Performance Specification	psia	Pounds per square inch absolute
PSD	Prevention of Significant Deterioration	psig	Pounds per square inch gauge
PTE	Permanent Total Enclosure	scf	Standard cubic feet
PTI	Permit to Install	sec	Seconds
RACT	Reasonably Available Control Technology	SO ₂	Sulfur Dioxide
ROP	Renewable Operating Permit	THC	Total Hydrocarbons
SC	Special Condition	tpy	Tons per year
SCR	Selective Catalytic Reduction	µg	Microgram
SRN	State Registration Number	VOC	Volatile Organic Compounds
TAC	Toxic Air Contaminant	yr	Year
TEQ	Toxicity Equivalence Quotient		
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 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

Emission Unit ID	Emission Unit Description	Stack Identification
EUTREATMENT	EQ Detroit waste management facility. Consists of a waste stabilization operation which processes hazardous and non-hazardous off-site waste using chemical stabilization. Reagents include: lime, cement kiln dust, ferrous sulfate, sand, and fly ash. All emissions from the stabilization building are controlled by a baghouse and vented to the atmosphere through two stacks.	SVTREAT1 SVTREAT2
EUTANK13	Tank for primary processing of oil/water mixtures	SVPACKEDSCRUBBER
EUTANK14	Tank for primary processing of oil/water mixtures	SVPACKEDSCRUBBER
EUTANK15	Tank for primary processing of oil/water mixtures	SVPACKEDSCRUBBER
EUTANK16	Tank for primary processing of oil/water mixtures	SVPACKEDSCRUBBER
EUTANK17	Tank for primary processing of oil/water mixtures	SVPACKEDSCRUBBER
EUTANK18	Tank for primary processing of oil/water mixtures	SVPACKEDSCRUBBER
EUTANK120	Tank for secondary processing of oil/water mixtures	SVPACKEDSCRUBBER
EUTANK121	Tank for secondary processing of oil/water mixtures	SVPACKEDSCRUBBER
EUTANK122	Tank for secondary processing of oil/water mixtures	SVPACKEDSCRUBBER
EUTANK123	Tank for secondary processing of oil/water mixtures	SVPACKEDSCRUBBER
EUOILRECOVERY	FGPRIMARYTANKS, FGSECONDARYTANKS, Oil recovery process. Oils are separated from oil/water mixtures in multiple stages using heat and chemicals. Tank emissions are controlled by a packed bed scrubber	SVPACKEDSCRUBBER
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
FGPRIMARYTANKS	EUTANK13, EUTANK14, EUTANK15, EUTANK16, EUTANK17, EUTANK18 All tanks in FGPRIMARYTANKS are cone roof tanks with the following dimensions: EUTANK13, EUTANK15, EUTANK17: Height: 30 feet, Diameter: 30 feet EUTANK14, EUTANK16, EUTANK18: Height: 30 feet, Diameter: 24 feet	SVPACKEDSCRUBBER
FGSECONDARYTANKS	EUTANK120, EUTANK121, EUTANK122, EUTANK123 All tanks in FGSECONDARYTANKS are cone roof tanks with the following dimensions: Height: 18 feet Diameter: 12 feet	SVPACKEDSCRUBBER
FGFACILITY	EUTREATMENT, EUOILRECOVERY All process equipment at the facility including equipment covered by other permits, grand-fathered equipment and exempt equipment.	

The following conditions apply to: EUTREATMENT

Pollution Control Equipment: Fabric filter control system (baghouse)

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirement
1.1a	PM	EUTREATMENT	0.002 grains/dry standard cubic foot	Test Protocol	SC 1.9, 1.10	R336.1225, R336.1331
1.1b	PM	EUTREATMENT	4.3 pph	Test Protocol	SC 1.9, 1.10	R336.1225, R336.1331
1.1c	VOC	EUTREATMENT	25.0 pph	Test Protocol	SC 1.9, 1.10, 1.11, 1.12, 1.13	R336.1225, R336.1702(a)
1.1d	1,4-Dichlorobenzene	EUTREATMENT	9.8 tpy	12-month rolling time period*	SC 1.11, 1.12, 1.13	R336.1225
1.1e	Benzene	EUTREATMENT	5.6 pph	Test Protocol	GC 13 SC 1.11, 1.12	R336.1225
1.1f	Benzene	EUTREATMENT	7 tpy	12-month rolling time period*	SC 1.11, 1.12, 1.13	R336.1225
1.1g	Bromodichloromethane	EUTREATMENT	1.9 tpy	12-month rolling time period*	SC 1.11, 1.12, 1.13	R336.1225
1.1h	1,1,2,2- tetrachloroethane	EUTREATMENT	1.4 tpy	12-month rolling time period*	SC 1.11, 1.12, 1.13	R336.1225
1.1i	1,2-Dichloropropane	EUTREATMENT	0.7 pph	Test Protocol	GC 13 SC 1.11, 1.12	R336.1225
1.1j	1,1,2-Trichloroethane	EUTREATMENT	4.2 tpy	12-month rolling time period*	SC 1.11, 1.12, 1.13	R336.1225
1.1k	Bromomethane	EUTREATMENT	0.9 pph	Test Protocol	GC 13 SC 1.11, 1.12	R336.1225
1.1l	1,2-Dichloroethane	EUTREATMENT	2.8 tpy	12-month rolling time period*	SC 1.11, 1.12, 1.13	R336.1225
1.1m	Dibromochloromethane	EUTREATMENT	2.8 tpy	12-month rolling time period*	SC 1.11, 1.12, 1.13	R336.1225
1.1n	Vinyl chloride	EUTREATMENT	7.7 tpy	12-month rolling time period*	SC 1.11, 1.12, 1.13	R336.1225
1.1o	Carbon Tetrachloride	EUTREATMENT	4.9 tpy	12-month rolling time period*	SC 1.11, 1.12, 1.13	R336.1225
*12-month rolling time period as determined at the end of each calendar month.						

Material Usage Limits

- 1.2 The VOC content of all liquid waste received for treatment in EUTREATMENT shall not exceed 500 ppm in hazardous waste or 5.0 percent by weight in non-hazardous waste. Analysis of VOC content shall be performed according to the procedure described in Appendix A. [R336.1225, R336.1702(a)]
- 1.3 The waste streams processed in EUTREATMENT shall not contain any measurable quantities of the following compounds: [R336.1225, R336.1901]
- | | |
|----------------------|----------------------|
| a. Benzylamine | h. Ethanethiol |
| b. 2-Butanethiol | i. Methylamine |
| c. Butyric Acid | j. Thioglycolic Acid |
| d. Diethyl Sulfide | k. Thionyl Chloride |
| e. Dimethyl Sulfide | l. Thiram |
| f. Diethylamine | m. Trimethylamine |
| g. Diisobutyl Ketone | |

Process/Operational Limits

- 1.4 The permittee shall not operate EUTREATMENT unless a program for continuous fugitive dust emissions control for all plant roadways, the plant yard, all material storage piles, and all material handling operations has been implemented and is maintained. [R336.1372, Act 451 324.5524]
- 1.5 The permittee shall keep no more than one bay door to the EUTREATMENT building open during normal operation, except during unloading, at which time up to two bay doors may be open. Normal operation is defined in Appendix B. [R336.1901]
- 1.6 The permittee shall maintain negative pressure in the EUTREATMENT building during normal operation. This includes, but is not limited to, complying with SC 1.5 and maintaining the treatment building's proper structural integrity. Negative pressure shall be verified using the procedure outlined in Appendix B. [R336.1901]
- 1.7 The permittee shall not operate EUTREATMENT unless an approved preventative maintenance plan and malfunction abatement plan for the fabric filter control system, or alternate plans approved by the AQD District Supervisor, are implemented and maintained. If the malfunction abatement plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the malfunction abatement plan within 45 days after such an event occurs and submit the revised plan to the AQD District Supervisor. The revised plan shall include procedures for maintaining and operating in a satisfactory manner, EUTREATMENT, add-on air pollution control devices, or monitoring equipment during malfunction events, and a program for corrective action for such events. [R336.1910, R336.1911]

Equipment

- 1.8 The permittee shall not operate EUTREATMENT unless the fabric filter (baghouse) is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes, but is not limited to, following the plans required in SC 1.4. [R336.1225, R336.1301, R336.1331, R336.1910]

Testing

- 1.9 Within 180 days after commencement of trial operation, verification of VOC and Particulate Matter emission rates from EUTREATMENT, by testing at owner's expense, in accordance with Department requirements will be required. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. 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. [R336.1205(3), R336.1225, R336.1331, R336.1702(a), R336.2001, R336.2003, R336.2004]

1.10 Verification of the negative static pressure in the waste treatment building by testing, at owner's expense, in accordance with Department requirements, will be required for operating approval. The negative static pressure in the waste treatment building shall be determined by using smoke tubes, or an alternative method as approved by the AQD, and by visual observation of the air movement and direction. Alternative testing procedures and associated operational parameters must have prior approval by the AQD District Supervisor. Permittee shall conduct the verification tests at least once every year. Any request for a change in the testing frequency must be submitted to the AQD District Supervisor for review and approval. **[R336.1225, R336.1331, R336.2001, R336.2003]**

Recordkeeping/Reporting/Notification

1.11 The permittee shall keep, in a satisfactory manner, calendar month summaries of the VOC and HAP analyses for liquid waste received for treatment, as required by SC 1.2. 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)]**

1.12 The permittee shall keep, in a satisfactory manner, daily and cumulative monthly total records of the type (by waste code) and amount of waste processed in EUTREATMENT. 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)]**

1.13 The permittee shall calculate the VOC and HAP emission rates from EUTREATMENT for each month and 12-month rolling time period, using the method in Appendix A, or an alternative method acceptable to the AQD District 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)]**

1.14 The permittee shall keep, in a satisfactory manner, negative pressure determination records for the EUTREATMENT building, as required by SC 1.6, 1.10, and Appendix B. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. **[R336.1225, R336.1331, R336.1901]**

Stack/Vent Restrictions

	Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirement
1.15a	SVTREAT1	80	72	R336.1225
1.15b	SVTREAT2	80	72	R336.1225
The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.				

The following conditions apply to: EUOILRECOVERY

Pollution Control Equipment: packed bed scrubber

Material Usage Limits

2.1 The permittee shall not process more than the following amounts of liquid oil/water waste mixture in EUOILRECOVERY, on a 12-month rolling time period as determined at the end of each calendar month:

- a) FGPRIMARYTANKS: 73,000,000 gallons per year
- b) FGSECONDARYTANKS: 36,500,000 gallons per year

[R336.1702(a), R336.1225, R336.1901]

Process/Operational Limits

2.2 The temperature of the liquids stored in EUOILRECOVERY shall not exceed the following:

- a) FGPRIMARYTANKS 190F

b) FGSECONDARYTANKS 210F

[R336.1702(a), R336.1901]

- 2.3 The permittee shall not operate EUOILRECOVERY unless an approved preventative maintenance plan and malfunction abatement plan for the packed bed scrubber, or alternate plans approved by the AQD District Supervisor, are implemented and maintained. If the malfunction abatement plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the malfunction abatement plan within 45 days after such an event occurs and submit the revised plan to the AQD District Supervisor. The revised plan shall include procedures for maintaining and operating in a satisfactory manner, EUOILRECOVERY, add-on air pollution control devices, or monitoring equipment during malfunction events, and a program for corrective action for such events. **[R336.1910, R336.1911]**

Equipment

- 2.4 The permittee shall not operate EUOILRECOVERY unless emissions from all tanks are ducted to a packed bed scrubber that is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes maintaining the following conditions in the packed bed scrubber: **[R336.1901, R3136.1910]**
- a) the scrubbing liquid pH shall be maintained at 5.0 or higher
 - b) the oxidation/reduction potential (ORP) of the scrubbing liquid shall be maintained at 350 mV or higher
 - c) the scrubbing liquid flow rate shall be maintained between 100 and 135 gallons per minute
 - d) the pressure drop across the packed bed scrubber shall be maintained between 4" and 6.5" water gauge

Testing

- 2.5 Upon AQD request, the permittee shall verify and quantify odor emissions from EUOILRECOVERY, by testing at owner's expense, in accordance with Department requirements. Within 60 days after AQD request, the permittee shall submit to the AQD, a complete stack sampling and odor threshold analysis plan using the Dynamic Dilution Method. The stack sampling plan shall include provisions for various plant operating conditions, and odor neutralizer system operation (if any). The AQD must approve the final plan prior to testing. Verification of emissions includes the submittal of a complete report of the test results to the AQD within 60 days of the test. **[R336.1901, R336.2001, R336.2003, R336.2004]**

Monitoring

- 2.6 The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor the temperature of the liquid in each tank in EUOILRECOVERY on a continuous basis. **[R336.1702(a), R336.1901]**
- 2.7 The permittee shall install, calibrate, maintain and operate in a satisfactory manner, devices to monitor the following packed bed scrubber operating parameters on a continuous basis: **[R336.1901, R3136.1910]**
- a) scrubbing liquid pH
 - b) oxidation/reduction potential (ORP) of the scrubbing liquid
 - c) scrubbing liquid flow rate
 - d) pressure drop across the packed bed scrubber

Recordkeeping/Reporting/Notification

- 2.8 The permittee shall keep, in a satisfactory manner, daily records of the amount of liquid oil/water waste mixture processed in FGPRIMARYTANKS and FGSECONDARYTANKS. 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), R336.1225, R336.1901]**

2.9 The permittee shall keep, in a satisfactory manner, records of the monitored temperature of each liquid in each tank in EUOILRECOVERY. The temperature shall be recorded at least once per day and shall be measured at a time when EUOILRECOVERY is actively processing oil/water mixtures. 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), R336.1225, R336.1901]**

2.10 The permittee shall keep, in a satisfactory manner, records of the following monitored parameters for the packed bed scrubber:

- a) scrubbing liquid pH
- b) oxidation/reduction potential (ORP) of the scrubbing liquid
- c) scrubbing liquid flow rate
- d) pressure drop across the packed bed scrubber

Records of the monitored parameters shall be recorded at least once per day and shall be measured at a time when EUOILRECOVERY is actively processing oil/water mixtures. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1901, R3136.1910]**

2.11 The permittee shall keep, in a satisfactory manner, records of the date and amount of each addition of chemicals to the packed bed scrubbing liquid. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1901, R3136.1910]**

Stack/Vent Restrictions

	Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirement
2.12	SVPACKEDSCRUBBER	18	36	R336.1225
The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air. Additional text, descriptions, stack/vent conditions, etc. as needed.				

The following conditions apply to: FGFACILITY

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirement
3.1a	VOC	FGFACILITY	89.9 TPY	12-month rolling time period as determined at the end of each calendar month.	SC 3.3	R336.1205(3)
3.1b	Individual HAP	FGFACILITY	Less than 9 TPY	12-month rolling time period as determined at the end of each calendar month.	SC 3.3	R336.1205(3)
3.1c	Total HAPs	FGFACILITY	Less than 22.5 TPY	12-month rolling time period as determined at the end of each calendar month.	SC 3.3	R336.1205(3)

Equipment

- 3.2 Within 45 days of issuance of this permit, the permittee shall label all tanks included in EUTREATMENT and EUOILRECOVERY, according to the company identification numbers shown in the Emission Unit Identification table with a method acceptable to the AQD District Supervisor. Within seven days of completing the labeling, the permittee shall notify the AQD District Supervisor, in writing, as to the date the labeling was completed. **[R336.1201]**

Recordkeeping / Reporting / Notification

- 3.3 The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period calculations of VOC and HAP emissions from FGFACILITY. 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)]**

APPENDIX A

Methodology to Determine Emission Rates for Demonstrating Compliance

PROCEDURE TO DETERMINE VOC/HAP EMISSIONS FROM EUTREATMENT

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in SC 1.1.

The following formula shall be used to calculate and monitor the VOC/HAP emissions from EUTREATMENT, based on a 12-month rolling time period, as determined at the end of each calendar month:

$$VOC_e = \Sigma[V_i \times W_i \times D_i] \times Er \times [1 - A_e]$$

Where:

VOC_e = Cumulative VOC/HAP emissions from the unit during the period

i = Each iteration of waste stream treated during the time period

V_i = Volume of waste stream i processed

W_i = Weight fraction of VOC/HAP present in waste stream i processed

D_i = Density of waste stream i processed in appropriate unit; assumed to average 8.5 lbs/gal

Er = Emission factor for VOC/HAP released from waste during treatment process = 0.15 (15% wt) based on site specific data and testing, as approved by the AQD District Supervisor.

A_e = Control efficiency = 0 for EUTREATMENT (no control)

The permittee shall use the VOC/HAP emission factor, VOC/HAP capture efficiency and the control device control efficiency cited above until these parameters are determined by testing. Upon approval by the AQD, permittee shall use the test results for these parameters for VOC/HAP emission calculations unless a new determination by the permittee is approved by the AQD.

APPENDIX B

Protocol for Determining Building Negative Pressure

EQ Detroit will demonstrate that the chemical fixation/stabilization building meets the criteria of a permanent total enclosure using US EPA's "Procedure T" described in 40 CFR Section 52.741 or other applicable method approved by the AQD District Supervisor. These criteria are listed as follows:

1. Any natural draft opening (NDO) shall be at least four (4) equivalent diameters from each VOC emitting point.
2. The total area of all NDOs shall not exceed five (5) percent of the surface area of the enclosure's four walls, floor, and ceiling.
3. The average facial velocity (FV) of air through all NDOs shall be at least 3,600 m/hr (200 fpm). The direction of air through all NDOs shall be into the building.
4. All access doors and windows whose areas are not included in the area calculation described in item 2 and are not included in the calculation in item 3 shall be closed during routine operation of the process.
5. All VOC emissions must be captured and contained for discharge through a control device.

The demonstration will be submitted to the Air Quality Division within thirty days from the end of the trial operation period. Procedure T shall be performed in the initial permanent total enclosure demonstration, with a smoke test used to confirm it, as required by SC 1.10. An annual smoke test shall be performed starting the following year, as required by SC 1.10. In addition, if any changes are made that affect the original Procedure T calculation (such as adding a new door, changing location of process equipment, etc), then a new Procedure T calculation must be performed.

Furthermore, EQ Detroit shall implement a standard operating procedure which includes the following:

- a) The main system fan shall be maintained according to vendor's recommendations.
- b) The treatment building shall be maintained at negative pressure during normal operation.
- c) The main system fan shall continue to run for two hours after waste treatment (i.e. mixing of waste with treatment reagents) and drum shredding activities have stopped.

¹Normal operation is defined as any period that: (i) material in the treatment vaults is uncovered, (ii) material in the treatment vaults has been covered for less than two hours, (iii) the pug mill is operating or has been operating in the previous two hours, (iv) the shredder is operating or has been operating in the previous two hours, and (v) any period when hazardous waste has been charged into or discharged from a vault in the previous two hours.