

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

February 5, 2018

PERMIT TO INSTALL
269-04H

ISSUED TO
EQ Detroit, Inc. (DBA US Ecology)

LOCATED AT
1923 Frederick Street
Detroit, Michigan

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:

January 5, 2018

DATE PERMIT TO INSTALL APPROVED:

February 5, 2018

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	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO _{2e}	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environmental Quality	°F	Degrees Fahrenheit
EU	Emission Unit	gr	Grains
FG	Flexible Group	HAP	Hazardous Air Pollutant
GACS	Gallons of Applied Coating Solids	Hg	Mercury
GC	General Condition	hr	Hour
GHGs	Greenhouse Gases	HP	Horsepower
HVLP	High Volume Low Pressure*	H ₂ S	Hydrogen Sulfide
ID	Identification	kW	Kilowatt
IRSL	Initial Risk Screening Level	lb	Pound
ITSL	Initial Threshold Screening Level	m	Meter
LAER	Lowest Achievable Emission Rate	mg	Milligram
MACT	Maximum Achievable Control Technology	mm	Millimeter
MAERS	Michigan Air Emissions Reporting System	MM	Million
MAP	Malfunction Abatement Plan	MW	Megawatts
MDEQ	Michigan Department of Environmental Quality	NMOC	Non-methane Organic Compounds
MSDS	Material Safety Data Sheet	NO _x	Oxides of Nitrogen
NA	Not Applicable	ng	Nanogram
NAAQS	National Ambient Air Quality Standards	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM10	Particulate Matter equal to or less than 10 microns in diameter
NSPS	New Source Performance Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSR	New Source Review	pph	Pounds per hour
PS	Performance Specification	ppm	Parts per million
PSD	Prevention of Significant Deterioration	ppmv	Parts per million by volume
PTE	Permanent Total Enclosure	ppmw	Parts per million by weight
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO ₂	Sulfur Dioxide
SNCR	Selective Non-Catalytic Reduction	TAC	Toxic Air Contaminant
SRN	State Registration Number	Temp	Temperature
TEQ	Toxicity Equivalence Quotient	THC	Total Hydrocarbons
USEPA/EPA	United States Environmental Protection Agency	tpy	Tons per year
VE	Visible Emissions	µg	Microgram
		µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 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. **(R 336.1201(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 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(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 R 336.1210, 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. **(R 336.1201(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. **(R 336.1201(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 R 336.1219 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 R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**
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. **(R 336.1901)**
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). **(R 336.1912)**
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 R 336.1301, 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 R 336.1303. **(R 336.1301)**
 - 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 R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Flexible Group ID
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.	FGFACILITY
EUTANK13	Tank for primary processing of oil/water mixtures. Tank emissions are controlled by a packed bed scrubber.	FGPRIMARYTANKS FGOILRECOVERY
EUTANK14	Tank for primary processing of oil/water mixtures. Tank emissions are controlled by a packed bed scrubber.	FGPRIMARYTANKS FGOILRECOVERY
EUTANK15	Tank for primary processing of oil/water mixtures. Tank emissions are controlled by a packed bed scrubber.	FGPRIMARYTANKS FGOILRECOVERY
EUTANK16	Tank for primary processing of oil/water mixtures. Tank emissions are controlled by a packed bed scrubber.	FGPRIMARYTANKS FGOILRECOVERY
EUTANK17	Tank for primary processing of oil/water mixtures. Tank emissions are controlled by a packed bed scrubber.	FGPRIMARYTANKS FGOILRECOVERY
EUTANK18	Tank for primary processing of oil/water mixtures. Tank emissions are controlled by a packed bed scrubber.	FGPRIMARYTANK FGOILRECOVERY
EUTANK120	Tank for secondary processing of oil/water mixtures. Tank emissions are controlled by a packed-bed scrubber.	FGSECONDARYTANKS FGOILRECOVERY
EUTANK121	Tank for secondary processing of oil/water mixtures. Tank emissions are controlled by a packed-bed scrubber.	FGSECONDARYTANKS FGOILRECOVERY
EUTANK122	Tank for secondary processing of oil/water mixtures. Tank emissions are controlled by a packed-bed scrubber.	FGSECONDARYTANKS FGOILRECOVERY
EUTANK123	Tank for secondary processing of oil/water mixtures. Tank emissions are controlled by a packed-bed scrubber.	FGSECONDARYTANKS FGOILRECOVERY
EUSILO1	Storage container for solid material used in EUTREATMENT. Solid material could be lime, cement kiln dust, or fly ash.	FGFACILITY
EUSILO2	Storage container for solid material used in EUTREATMENT. Solid material could be lime, cement kiln dust, or fly ash.	FGFACILITY
EUSILO3	Storage container for solid material used in EUTREATMENT. Solid material could be lime, cement kiln dust, or fly ash.	FGFACILITY
EUSILO4	Storage container for solid material used in EUTREATMENT. Solid material could be lime, cement kiln dust, or fly ash.	FGFACILITY
EUSILO5	Storage container for solid material used in EUTREATMENT. Solid material could be lime, cement kiln dust, or fly ash.	FGFACILITY
EUOILRECOVERY	Oil recovery process. Oils are separated from oil/water mixtures in multiple stages using heat and chemicals.	FGOILRECOVERY
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.		

The following conditions apply to: EUTREATMENT

DESCRIPTION: 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.

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT: All emissions from the stabilization building are controlled by a baghouse and vented to the atmosphere through two stacks.

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.002 grains/dscf	Test protocol*	EUTREATMENT	GC 13	R 336.1225, R 336.1331
2. PM	4.3 pph	Test protocol*	EUTREATMENT	GC 13	R 336.1225, R 336.1331
3. VOC	25.0 pph	Test protocol*	EUTREATMENT	GC 13	R 336.1225, R 336.1702(a)

* Test protocol shall specify averaging time

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC content of liquid waste received	500 ppmw hazardous waste	Each load of liquid waste received	EUTREATMENT	SC VI.1	R 336.1225, R 336.1702(a)
2. VOC content of liquid waste received	5.0% by weight non-hazardous waste	Each load of liquid waste received	EUTREATMENT	SC VI.1	R 336.1225, R 336.1702(a)

* Test protocol shall specify averaging time

3. The waste streams processed in EUTREATMENT shall not contain any of the following compounds in excess of 500ppm: **(R 336.1225, R 336.1901)**

- | | |
|----------------------|------------------------------|
| a. Benzylamine | m. Trimethylamine |
| b. 2-Butanethiol | n. 1,4-Dichlorobenzene |
| c. Butyric Acid | o. Benzene |
| d. Diethyl Sulfide | p. Bromodichloromethane |
| e. Dimethyl Sulfide | q. 1,1,2,2-tetrachloroethane |
| f. Diethylamine | r. 1,2-Dichloropropane |
| g. Diisobutyl Ketone | s. 1,1,2-Trichloroethane |
| h. Ethanethiol | t. Bromomethane |
| i. Methylamine | u. 1,2-Dichloroethane |
| j. Thioglycolic Acid | v. Dibromochloromethane |
| k. Thionyl Chloride | w. Vinyl chloride |
| l. Thiram | x. Carbon Tetrachloride |

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EUTREATMENT unless the program for continuous fugitive dust emissions control has been implemented and is maintained. The plan for continuous control of fugitive dust emissions consists of wetting or sweeping of all paved roads and parking lots at least once a day, weather permitting, or an alternative method or frequency approved by the District Supervisor. **(R 336.1372, Act 451 324.5524)**
2. The permittee shall keep no more than one bay door to the EUTREATMENT building open and the container storage door open during material loading, material unloading, and normal operation. Normal operation is defined as any period that: **(R 336.1901)**
 - a. Material in the treatment vaults is uncovered.
 - b. Material in the treatment vaults has been covered for less than two hours.
 - c. The pug mill is operating or has been covered for less than two hours.
 - d. Any period when waste has been charged into or discharged from a vault in the previous two hours.
3. The permittee shall maintain negative pressure in the EUTREATMENT building during normal operation. This includes, but is not limited to, complying with SC III.2 and maintaining the treatment building's proper structural integrity. Negative pressure shall be verified using the procedure outlined in SC V.1. **(R 336.1901)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUTREATMENT unless the fabric filter (baghouse) is installed, maintained, and operated in a satisfactory manner. **(R 336.1225, R 336.1301, R 336.1331, R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Verification of the negative static pressure in the waste treatment building by testing, at owner's expense, in accordance with Department requirements, is required within 12 months of the most recent test. For subsequent tests, the permittee is not required to submit a test plan unless the permittee desires to use alternative testing procedures and associated operational parameters, or at the request of the AQD. No less than 7 days prior to testing, the permittee shall notify the AQD District Supervisor of the date testing will be conducted. Permittee shall conduct the verification tests at least once every year within 12 months of the previous test. Any request for a change in the testing frequency must be submitted to the AQD District Supervisor for review and approval. **(R 336.1225, R 336.1331, R 336.2001, R 336.2003)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall keep, in a satisfactory manner, the following records. The permittee shall keep all records on file and make them available to the Department upon request: **(R 336.1205(3), R 336.1225, R 336.1702(a))**
 - a) The VOC content of each waste stream received for treatment in EUTREATMENT.
 - b) Daily and cumulative monthly total records of the type (by waste code) and amount of waste processed in EUTREATMENT.
 - c) Calculations of VOC emission rates from EUTREATMENT for each month and 12-month rolling time period, using the method in Appendix A or an alternate method approved by the District Supervisor.

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVTREAT1	80	72	R 336.1225
2. SVTREAT2	80	72	R 336.1225

IX. OTHER REQUIREMENTS

NA

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGPRIMARYTANKS	(6) tanks for processing oil-water mixtures	EUTANK13, EUTANK14, EUTANK15, EUTANK16, EUTANK17, EUTANK18
FGSECONDARYTANKS	(4) tanks for processing oil-water mixtures	EUTANK120, EUTANK121, EUTANK122, EUTANK123
FGOILRECOVERY	Oil recovery process. Includes (6) primary process tanks (FGPRIMARYTANKS) and (4) secondary process tanks (FGSECONDARYTANKS). Oils are separated from oil/water mixtures in multiple stages using heat and chemicals. Tank emissions are controlled by a packed bed scrubber.	EUOILRECOVERY, FGPRIMARYTANKS, FGSECONDARYTANKS
FGFACILITY	All process equipment at the facility including equipment covered by other permits, grand-fathered equipment and exempt equipment.	EUTREATMENT, EUOILRECOVERY, EUSILO1, EUSILO2, EUSILO3, EUSILO4, EUSILO5, FGPRIMARYTANKS, FGSECONDARYTANKS

The following conditions apply to: FGOILRECOVERY

DESCRIPTION: Oil recovery process. Includes (6) primary process tanks (FGPRIMARYTANKS) and (4) secondary process tanks (FGSECONDARYTANKS). Oils are separated from oil/water mixtures in multiple stages using heat and chemicals.

Emission Units: EUOILRECOVERY, FGPRIMARYTANKS, FGSECONDARYTANKS

POLLUTION CONTROL EQUIPMENT: Tank emissions from FGPRIMARYTANKS and FGSECONDARYTANKS are controlled by a packed bed scrubber.

I. EMISSION LIMITS

NA

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. oil/water waste mixture	73,000,000 gallons	12-month rolling time period	FGPRIMARYTANKS	SC VI.3.	R 336.1225, R 336.1702(a), R 336.1901
2. oil/water waste mixture	36,500,000 gallons	12-month rolling time period	FGSECONDARYTANKS	SC VI.3.	R 336.1225, R 336.1702(a), R 336.1901

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The temperature of the liquids stored in FGPRIMARYTANKS shall not exceed 190°F. **(R 336.1702(a), R 336.1901)**
2. The temperature of the liquids stored in FGSECONDARYTANKS shall not exceed 210°F. **(R 336.1702(a), R 336.1901)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate FGOILRECOVERY 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: **(R 336.1901, R 3136.1910)**
 - 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.

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Upon AQD request, the permittee shall verify and quantify odor emissions from FGOILRECOVERY, 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. **(R 336.1901, R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. 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 FGOILRECOVERY on a continuous basis. **(R 336.1702(a), R 336.1901)**
2. 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: **(R 336.1901, R 3136.1910)**
 - 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
3. The permittee shall keep, in a satisfactory manner, the following records. The permittee shall keep all records on file and make them available to the Department upon request: **(R 336.1702(a), R 336.1225, R 336.1901)**
 - a) The amount of liquid oil/water waste mixture processed in FGPRIMARYTANKS and FGSECONDARYTANKS on a daily, monthly, and 12-month rolling time period basis
 - b) Records of the monitored temperature of each liquid in each tank in FGOILRECOVERY. The temperature shall be recorded at least once per day and shall be measured at a time when FGOILRECOVERY is actively processing oil/water mixtures.
 - c) The date and amount of each addition of chemicals to the packed bed scrubbing liquid.
 - d) The following monitored parameters for the packed bed scrubber shall be recorded at least once per day and shall be measured at a time when FGOILRECOVERY is actively processing oil/water mixtures:
 - I. Scrubbing liquid pH.
 - II. Oxidation/reduction potential (ORP) of the scrubbing liquid.
 - III. Scrubbing liquid flow rate.
 - IV. Pressure drop across the packed bed scrubber.

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVSCRUBBER	18	36	R 336.1225

IX. OTHER REQUIREMENTS

NA

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply Source-Wide to: FGFACILITY

POLLUTION CONTROL EQUIPMENT: All emissions from the stabilization building are controlled by a baghouse and vented to the atmosphere through two stacks. Tank emissions from FGPRIMARYTANKS and FGSECONDARYTANKS are controlled by a packed bed scrubber.

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	89.9 tpy	12-month rolling time period as determined at the end of each calendar month.	FGFACILITY	SC VI.1	R 336.1205(3)
2. Individual HAP	Less than 9 tpy	12-month rolling time period as determined at the end of each calendar month.	FGFACILITY	SC VI.1	R 336.1205(3)
3. Total HAPs	Less than 22.5 tpy	12-month rolling time period as determined at the end of each calendar month.	FGFACILITY	SC VI.1	R 336.1205(3)

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate FGFACILITY unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the air pollution control systems, is implemented and maintained as submitted to the AQD District Supervisor. If at any time the MAP fails to address or inadequately addresses an event that meets the definition of a "malfunction" in Rule 113 (a), the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the original MAP and or any amendments to the MAP required by the permit condition to the AQD District Supervisor for review and approval within 45 days of the event, installation, or request. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period calculations of VOC and HAP emissions from FGFACILITY. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(3))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

APPENDIX A

Methodology to Determine Emission Rates for Demonstrating Compliance

PROCEDURE TO DETERMINE VOC 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:

$$\text{VOC}_e = \sum(V_i \times W_i \times D_i) \times E_r \times (1 - A_e)$$

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

E_r = 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.