

March 17, 2011

PERMIT TO CONSTRUCT/OPERATE

Equipment Description:

SOIL VAPOR EXTRACTION AND TREATMENT SYSTEM, MAKO, MODEL 250, IN-SITU TREATMENT FOR NON-CHLORINATED HYDROCARBONS, CONSISTING OF:

1. VAPOR EXTRACTION WELL(S) AND DUCT(S)
2. LIQUID SEPARATOR, 100 GALLONS
3. EXTRACTION BLOWER, MAXIMUM FLOW RATE 250 SCFM, 10 HP
4. THERMAL OXIDIZER, WITH AN ECLIPSE WINNOX MODEL WX0050 LOW-NOX BURNER, 400,000 BTU/HR, PROPANE FUELED, WITH A 100 CFM COMBUSTION AIR BLOWER, AND A FULLY MODULATED AUTOMATIC TEMPERATURE CONTROL SYSTEM.
5. OPTIONAL CATALYTIC OXIDIZER, PRECIOUS METAL MONOLITHIC TYPE, WITH 0.66 CUBIC FEET OF ACTIVE VOLUME AND A FULLY MODULATED AUTOMATIC TEMPERATURE CONTROL SYSTEM
6. LIQUID HOLDING TANK, 500 GALLONS

Conditions:

- 1) CONSTRUCTION AND OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
- 2) THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
- 3) UPON COMPLETION, ANY VAPOR EXTRACTION WELLS AND DUCTS SHALL BE CAPPED TO PREVENT VAPORS FROM VENTING TO THE ATMOSPHERE. VAPORS SHALL NOT BE EXTRACTED FROM THE SOIL UNLESS THEY ARE VENTED TO THE VAPOR CONTROL SYSTEM, WITH NO DETECTABLE LEAK BETWEEN THE OUTLET OF THE BLOWER AND THE OUTLET OF THE VAPOR CONTROL SYSTEM.
[RULE 204]
- 4) AN IDENTIFICATION TAG OR NAMEPLATE SHALL BE DISPLAYED ON THE EQUIPMENT TO SHOW THE MANUFACTURER, MODEL NUMBER, SERIAL NUMBER, FLOW RATING, AND VOLUME OF CATALYST. THE TAG(S) OR PLATE(S) SHALL BE ISSUED BY THE MANUFACTURER AND SHALL ADHERE TO THE EQUIPMENT IN A PERMANENT AND CONSPICUOUS POSITION.
[RULE 204]

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- 5) THE MOST CURRENT CONTACT PERSON'S NAME, COMPANY AND PHONE NUMBER SHALL BE DISPLAYED IN A PERMANENT AND CONSPICUOUS LOCATION.
[RULE 204]
- 6) THE TOTAL INLET FLOW RATE SHALL NOT EXCEED 250 SCFM.
[RULE 1303(b)(2)-OFFSETS, 1401]
- 7) WHENEVER THE THERMAL OXIDIZER IS IN OPERATION, THE TEMPERATURE AT THE OUTLET OF THE COMBUSTION CHAMBER SHALL NOT BE LESS THAN 1400 DEGREES FAHRENHEIT.
[RULE 1303(a)(1)-BACT, 1401]
- 8) WHENEVER THE CATALYTIC OXIDIZER IS IN OPERATION, THE TEMPERATURE AT THE INLET OF THE CATALYSTMODULE SHALL NOT BE LESS THAN 600 DEGREES FAHRENHEIT.
[RULE 1303(a)(1)-BACT, 1401]
- 9) THE LABORATORY DETECTION LIMITS FOR BENZENE AND MTBE SHALL BE LOWER THAN THE EMISSION LIMITS SPECIFIED IN THESE CONDITIONS.
[RULE 204]
- 10) EQUIPMENT SHUTDOWN INTERLOCKS SHALL BE PROVIDED FOR LOW OXIDATION TEMPERATURES EXCEPT DURING STARTUPS.
[RULE 204]
- 11) THE CATALYST IN THE CONVERTER SHALL BE MAINTAINED IN GOOD WORKING CONDITION. THE OPERATOR SHALL MAINTAIN RECORDS OF CATALYST CLEANING PERIODS AND REPLACEMENT FREQUENCY.
[RULE 204]
- 12) THIS EQUIPMENT SHALL NOT BE USED TO TREAT VAPORS CONTAINING HALOGENATED COMPOUNDS.
[RULE 1401]
- 13) THIS EQUIPMENT SHALL ONLY EXHAUST THROUGH A STACK WITH A "NO-LOSS RAIN CAP" AT HEIGHT OF AT LEAST 13 FEET ABOVE GRADE.
[RULE 1401]
- 14) THIS EQUIPMENT SHALL NOT EXTRACT OR TREAT VAPORS FROM SOILS CONTAMINATED WITH ANY RULE 1401 LISTED CARCINOGENIC AIR CONTAMINANTS (AS AMENDED JUNE 5, 2009) WITH THE EXCEPTION OF BENZENE, MTBE, ETHYLBENZENE, AND NAPHTHALENE. THIS SHALL BE VERIFIED BY SITE ASSESSMENT, PERFORMANCE TEST RESULTS, VAPOR SAMPLING, OR OTHER APPROPRIATE STUDIES.
[RULE 1401]

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- 15) THE OPERATOR SHALL SUBMIT TO THE SCAQMD IN WRITING THE RESULTS OF THE FIRST MONTH OF OPERATIONS, INCLUDING BUT NOT LIMITED TO: MONITORING, LAB ANALYSES, FLOW READINGS, AND TEMPERATURE READINGS SUFFICIENT TO PROVE COMPLIANCE WITH THE CONDITIONS OF THIS PERMIT. SUBMITTAL SHALL BE WITHIN 30 DAYS OF LAST MONITORING/SAMPLING DAY AND ADDRESSED TO:

SCAQMD
REFINERY AND WASTE MANAGEMENT TEAM
ENGINEERING AND COMPLIANCE DIVISION
21865 COPLEY DRIVE
DIAMOND BAR, CA 91765

DATA FOR SUBSEQUENT MONTHS OF OPERATION SHALL BE MAINTAINED ON SITE AND MADE AVAILABLE TO SCAQMD PERSONNEL UPON REQUEST. [RULE 204]

- 16) THE OPERATOR SHALL PERFORM COMBUSTION SYSTEM MAINTENANCE IN ACCORDANCE WITH MANUFACTURER RECOMMENDED MAINTENANCE SCHEDULE. A COPY OF THE MANUFACTURER'S MANUAL OR OTHER WRITTEN GUIDANCE MATERIALS SUPPLIED BY THE MANUFACTURER OR DISTRIBUTOR AND RECORDS OF MAINTENANCE ACTIVITIES SHALL BE RETAINED ON SITE FOR AT LEAST THREE YEARS AND SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. [RULE 1147]

- 17) RECORDS SHALL BE KEPT FOR AT LEAST FIVE YEARS AND MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST. [RULE 204]

- 18) THIS PERMIT TO CONSTRUCT SHALL EXPIRE ONE YEAR FROM THE DATE OF ISSUANCE UNLESS AN EXTENSION IS GRANTED BY THE EXECUTIVE OFFICER. [RULE 205]

PERIODIC MONITORING:

- 19) A CONTINUOUS FLOW INDICATOR AND RECORDER SHALL BE INSTALLED AND MAINTAINED AT ALL INLET STREAMS TO THE VAPOR CONTROL SYSTEM TO INDICATE THE TOTAL AIR FLOW RATE IN STANDARD CUBIC FEET PER MINUTE (SCFM). IN CASE A PRESSURE SENSOR DEVICE IS USED IN PLACE OF THE FLOW INDICATOR, A CONVERSION CHART SHALL BE MADE AVAILABLE TO INDICATE THE CORRESPONDING FLOW RATE, IN CFM, TO THE PRESSURE READING. [RULE 1303(b)(2)-OFFSETS, 1401, 3004(a)(4)-PERIODIC MONITORING]

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- 20) VOLATILE ORGANIC COMPOUND (VOC) CONCENTRATION SHALL BE MEASURED DAILY AT THE OUTLET OF THE VAPOR EXTRACTION SYSTEM DURING THE FIRST SEVEN DAYS OF EACH MODE OF OPERATION (THERMAL AND CATALYTIC), THEN AT LEAST ONCE EVERY SEVEN OPERATING DAYS BY USING A FLAME IONIZATION DETECTOR OR A DISTRICT APPROVED ORGANIC VAPOR ANALYZER (OVA) CALIBRATED IN PARTS PER MILLION BY VOLUME (PPMV) OF HEXANE (IF OTHER CALIBRATING AGENT WAS USED, IT SHALL BE CORRELATED TO AND EXPRESSED AS HEXANE). CALIBRATION SHALL BE PERFORMED WITH EACH MONITORING VISIT.
[RULE 1303(b)(2)-OFFSETS, 3004(a)(4)-PERIODIC MONITORING]
- 21) SAMPLES SHALL BE COLLECTED AND ANALYZED ONCE EACH MONTH FOR EACH MODE OF OPERATION FOR VOLATILE ORGANIC COMPOUNDS AND SPECIATED FOR BENZENE AND MTBE AS FOLLOWS:
- A. SAMPLES SHALL BE COLLECTED AT THE INLET AND OUTLET OF THE THERMAL OXIDIZER/CATALYTIC OXIDIZER.
 - B. SAMPLING SHALL CONFORM TO CARB METHOD 422 OR EQUIVALENT. SAMPLES WITH HIGH MOISTURE SHALL BE COLLECTED USING AN APPROPRIATE METHOD SUCH AS SCAQMD METHOD 25.1/25.3 OR OTHER METHODS APPROVED BY SCAQMD.
 - C. ANALYSIS SHALL BE CONDUCTED USING EPA METHOD 8015/8021 AND EPA METHOD 8260 OR OTHER METHOD APPROVED BY SCAQMD.
[RULE 1303(b)(2)-OFFSETS, 1401, 3004(a)(4)-PERIODIC MONITORING]
- 22) A CONTINUOUS TEMPERATURE MEASUREMENT AND RECORDING DEVICE SHALL BE MAINTAINED TO MEASURE THE OUTLET OF THE THERMAL OXIDIZER COMBUSTION CHAMBER AND THE INLET AND OUTLET OF THE CATALYST BED. THE ACCURACY OF THE TEMPERATURE MONITORING DEVICE SHALL BE PLUS OR MINUS ONE DEGREE CELSIUS OR PLUS OR MINUS ONE PERCENT OF THE TEMPERATURE BEING MONITORED, WHICHEVER IS GREATER. THE RECORDER SHALL RECORD THE INSTANTANEOUS TEMPERATURE AT LEAST ONCE EVERY 15 MINUTES OR RECORD 15-MINUTE OR MORE FREQUENT BLOCK AVERAGES. IN ADDITION, THE RECORDING DEVICE SHALL RECORD HOURLY AVERAGE AND DAILY AVERAGE COMBUSTION CHAMBER TEMPERATURE.
[RULE 1303(a)(1)-BACT, 1401, 3004(a)(4)-PERIODIC MONITORING]
- 23) THE OWNER OR OPERATOR SHALL PERFORM A PERFORMANCE TESTS WITHIN 180 DAYS OF STARTUP, AND EVERY THREE YEARS THEREAFTER, TO DEMONSTRATE COMPLIANCE WITH THE EMISSION LIMITS OF THIS PERMIT. A WRITTEN PROTOCOL AND NOTIFICATION OF THE INITIAL TEST SHALL BE SUBMITTED AT LEAST 60 DAYS BEFORE THE PERFORMANCE TEST IS SCHEDULED TO BEGIN. RESULTS SHALL BE SUBMITTED WITHIN 60 DAYS OF COMPLETION OF THE TESTS. EACH PERFORMANCE TEST SHALL CONSIST OF THREE SEPARATE TEST RUNS, AND EACH RUN LASTING FOR AT LEAST ONE HOUR, USING APPROVED METHODS.
[RULE 1303(a)(1)-BACT, 1401, 3004(a)(4)-PERIODIC MONITORING]

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EMISSIONS AND REQUIREMENTS:

- 24) THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

VOC:	12.3 LB/DAY, RULE 1303(b)(2)-OFFSETS
BENZENE:	0.007 LB/HR, RULE 1401
MTBE:	0.06 LB/HR, RULE 1401
NOX:	0.074 LB/LR, RULE 1303(b)(2)-OFFSETS

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A/N 516458

PERMIT TO OPERATE

Equipment Description

SATURATOR SUMP, 790 GALLONS, UNDERGROUND, 3'-8" DIA. BY 10'-0" H.

Conditions:

- 1) OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.

[RULE 204]

- 2) THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.

[RULE 204]

- 3) THE OPERATOR SHALL LIMIT THE THROUGHPUT TO NO MORE THAN 600 BARRELS PER MONTH.

[RULE 1303(b)(2)-OFFSETS, 1401]

- 4) RECORDS SHALL BE KEPT FOR FIVE YEARS AND MADE AVAILABLE TO THE EXECUTIVE OFFICER UPON REQUEST.

[RULE 1303(b)(2)-OFFSETS, 1401]

Periodic Monitoring:

- 5) THE OPERATOR SHALL GAUGE THE CONTENTS OF THE SATURATOR TANK PRIOR TO EACH EMPTYING EVENT INTO THE SATURATOR SUMP TO DETERMINE SUMP THRUPTUT.

[RULE 1303(b)(2)-OFFSETS, 1401, 3004(a)(4)-PERIODIC MONITORING]

Emissions and Requirements: NONE

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PERMIT TO OPERATE

Equipment Description:

STATION SUMP, 1086 GALLON, UNDERGROUND, 5'-4" DIA. BY 6'-6" H., VENTED TO APC SYSTEM

Conditions:

- 1) OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.

[RULE 204]

- 2) THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.

[RULE 204]

- 3) THE OPERATOR SHALL LIMIT THE THROUGHPUT TO NO MORE THAN 5917 BARRELS PER MONTH.

[RULE 1303(b)(2)-OFFSETS, 1401]

- 4) RECORDS SHALL BE KEPT FOR FIVE YEARS AND MADE AVAILABLE TO THE EXECUTIVE OFFICER UPON REQUEST.

[RULE 1303(b)(2)-OFFSETS, 1401]

Periodic Monitoring:

- 5) OPERATOR SHALL MEASURE THE THROUGHPUT OF THE STATION SUMP BY MEASURING THE THROUGHPUT OF TANK CN-100. THROUGHPUT OF TANK CN-100 SHALL BE EQUIVALENT TO THROUGHPUT OF STATION SUMP.

[RULE 1303(b)(2)-OFFSETS, 1401, 3004(a)(4)-PERIODIC MONITORING]

Emissions and Requirements: NONE