

**FACILITY PERMIT TO OPERATE
PETRO DIAMOND TERMINAL CO**

PERMIT TO CONSTRUCT/OPERATE ~~CONSTRUCT~~

P/O
A/N 528479
Granted / /

Equipment Description:

ALTERATION OF AN EXISTING VAPOR RECOVERY SYSTEM, MCGILL INC., CARBON ADSORPTION/ABSORPTION TYPE, VACUUM REGENERATIVE TYPE (PRESSURE SWING REGENERATION), SERVING RACK NOS. 1, 3, 4, AND 5, AND SERVING TANK DEGASSING OPERATIONS (PREVIOUSLY PERMITTED UNDER A/N 499972 434295: P/O F982980, CONSISTING OF:

1. CARBON ADSORBER A, MCGILL INC., MODEL MR-1004, VACUUM REGENERATIVE TYPE, 6'-0" DIA. X 12'-0" H.
2. CARBON ADSORBER B, MCGILL INC., MODEL MR-1004, VACUUM REGENERATIVE TYPE, 6'-0" DIA. X 12'-0" H.
3. ABSORBER V-221, REGENERATIVE TYPE, 3'-0" DIA. X 17'-6"H.
4. SEPARATOR VESSEL V-220, 3'-6" DIA. X 8'-6"H.
5. UNDERGROUND KNOCKOUT POT, 4'-0" DIA. X 8'-0"H.
6. GASOLINE SUPPLY PUMP, CENTRIFUGAL, WITH A MECHANICAL SEAL, 10-H.P.
7. RETURN PUMP, CENTRIFUGAL, WITH A MECHANICAL SEAL, 10-H.P.
8. SUMP PUMP, 1.5-H.P.
9. VACUUM PUMP, 60-H.P.
10. ETHYLENE GLYCOL PUMP, 2-H.P.
11. COLLECTION BLOWER, 2-H.P., 225 CFM CAPACITY.
12. COLLECTION HEADER, 0'-8" DIA., WITH A 0'-6" DIA. BLINDED BRANCH CONNECTION FOR EACH TANK, CONNECTED TO THE EXISTING MCGILL VAPOR RECOVERY UNIT.
13. VACONOSEP VOC MEMBRANE SEPARATION UNIT VESSEL, BORSIG, WITH 8 MEMBRANE MODULES, AND WITH A TOTAL COMBINED SURFACE AREA OF 1547 SQ. FT.

BY THE ADDITION OF

~~CONNECTIONS TO RACK NO. 1 LOADING OPERATIONS~~

CONTINUOUS MONITORING SYSTEM AS DESCRIBED UNDER A/N 528480 (RULE 462 PLAN)

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(continued)

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) THIS EQUIPMENT SHALL BE USED ONLY TO RECEIVE, RECOVER AND/OR DISPOSE OF VENT GASES ROUTED FROM LOADING AND UNLOADING RACK NOS. 1, 3, 4 AND 5, AND FROM TANK DEGASSING OPERATIONS.
[RULE 1303(a)(1)-BACT, RULE 1149]
- 4) THE OPERATOR SHALL NOT USE THIS EQUIPMENT TO PROCESS VAPORS FROM TANK DEGASSING OR TANK REFILLING, AND VAPORS FROM LOADING RACK OPERATIONS, AT THE SAME TIME.
[RULE 1303(a)(1)-BACT]
- 5) THE OPERATOR SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:
 - A. THE OPERATOR SHALL OPERATE AND MAINTAIN A CONTINUOUS EMISSION MONITORING SYSTEM (CEMS) TO MEASURE THE ~~VOG~~ **TOTAL HYDROCARBON (THC)** CONCENTRATION OF THE EXHAUST GAS OF THE VAPOR RECOVERY SYSTEM IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE RULE 462 PLAN APPLICATION (A/N 529480 324655), UNLESS OTHERWISE NOTED BELOW.
 - B. THE ~~VOG~~ **THC** CONCENTRATION OF THE EXHAUST GAS SHALL BE MEASURED IN PERCENT PROPANE **OR EQUIVALENT PPMV**.
 - C. PRIMARY SYSTEM
THE OPERATOR SHALL SET THE RANGE OF THE STRIP CHART **OR DIGITAL RECORDING DEVICE** TO RECORD BETWEEN ZERO AND FIVE (5) PERCENT PROPANE BY VOLUME **OR EQUIVALENT PPMV**. THE CEMS SHALL BE CALIBRATED WITH PROPANE ON A DAILY BASIS. THE OPERATOR SHALL CALIBRATE THE CEMS IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS SUCH THAT THE OVERALL ACCURACY IS WITHIN ± 1 PERCENT.
 - D. OPTIONAL SYSTEM
THE OPERATOR SHALL SET THE RANGE OF THE STRIP CHART TO RECORD BETWEEN ZERO AND TWO (2) PERCENT PROPANE BY VOLUME **OR EQUIVALENT**

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PPMV. THE CEMS SHALL BE CALIBRATED WITH PROPANE ON A DAILY BASIS. THE OPERATOR SHALL CALIBRATE THE CEMS IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS SUCH THAT THE OVERALL ACCURACY IS WITHIN ± 1 PERCENT.

- E. THE ~~VOC~~ THC CONCENTRATION AT THE EXHAUST OF THE VAPOR RECOVERY SYSTEM, MEASURED BY THE CEMS, SHALL NOT EXCEED 1.90 ~~0.87~~ PERCENT BY VOLUME, AS PROPANE ON AN INSTANTANEOUS BASIS. THE OPERATOR SHALL INSTALL AND MAINTAIN A VISIBLE AND AUDIBLE ALARM SERVING THE CEMS. THIS SYSTEM SHALL ALERT THE OPERATOR WHEN THE VOC CONCENTRATION REACHES 80 PERCENT OF THIS LIMIT (1.52 ~~0.70~~ PERCENT BY VOLUME, AS PROPANE). THE OPERATOR SHALL SHUT DOWN THE LOADING RACKS WHEN THE ~~0.87~~ 1.90 PERCENT LIMIT IS REACHED.**
- F. THE THC CONCENTRATION AT THE EXHAUST OF THE VAPOR RECOVERY SYSTEM, MEASURED BY THE CEMS, SHALL NOT EXCEED 0.42 PERCENT BY VOLUME, AS PROPANE OR EQUIVALENT PPMV BASED ON A ROLLING 15 MINUTE AVERAGE.**
- G. THE OPERATOR SHALL NOTIFY THE EXECUTIVE OFFICER, WITHIN 24 HOURS, IN THE EVENT OF A CONTINUOUS MONITORING SYSTEM (CEMS) OR RECORDER FAILURE, OR SHUTDOWN FOR REPAIR, WHICH EXCEEDS ONE HOUR. THE NOTIFICATION SHALL INCLUDE THE CAUSE AND TIME OF THE FAILURE, THE TIME THE CEMS AND RECORDER IS RETURNED TO OPERATION, MAINTENANCE OR CORRECTIVE WORK PERFORMED, AND ACTIONS TAKEN TO PREVENT SUCH FAILURES IN THE FUTURE. THE CEMS AND RECORDER SHALL BE RESTORED TO NORMAL OPERATION WITHIN 96 HOURS OF THE FAILURE.**
- H. THE OPERATOR SHALL KEEP RECORDS TO SHOW COMPLIANCE WITH THE CONDITIONS ON THIS PERMIT. SUCH RECORDS SHALL BE MAINTAINED FOR A PERIOD OF AT LEAST FIVE YEARS IN A FORMAT APPROVED BY THE DISTRICT, AND SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.**
- I. ALL OF THE CONDITIONS SPECIFIED ABOVE ARE SUBJECT TO REVISION TO COMPLY WITH THE REQUIREMENTS OF ANY SUBSEQUENT RULE 462 PLAN TO BE ISSUED BY THE AQMD.**
- J. EXCEPT FOR EMERGENCY CASES, THE SCAQMD SHALL BE NOTIFIED OF THE DATE AND TIME THAT THE DEGASSING WILL BE PERFORMED AT THIS LOCATION AT LEAST TWO WEEKS IN ADVANCE. NOTIFICATION SHALL BE MADE IN WRITING TO THE REFINERY TEAM IN THE OFFICE OF ENGINEERING AND COMPLIANCE.**

[RULE 462, 1303(b)(1)-OFFSETS]

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- 7) THE OPERATOR SHALL CONDUCT SOURCE TEST(S) IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:
- A. A SOURCE TEST SHALL BE CONDUCTED TO DETERMINE THE VOC EMISSION RATE IN POUNDS PER 1,000 GALLONS LOADED.
 - B. THE TEST SHALL BE CONDUCTED AT LEAST ONCE VERY FIVE YEARS ~~THE NEXT SCHEDULED TEST DATE BUT NOT LATER THAN 365 DAYS AFTER COMPLETION OF THE ALTERATION TO THE LOADING RACK.~~
 - C. THE TEST SHALL BE CONDUCTED TO DEMONSTRATE THE OVERALL CONTROL EFFICIENCY FOR THE VAPOR RECOVERY SYSTEM.
 - D. THE TEST SHALL BE CONDUCTED TO DETERMINE THE BULK LOADING RATE IN GALLONS PER HOUR DURING THE SOURCE TEST.
 - E. THE DISTRICT SHALL BE NOTIFIED OF THE DATE AND TIME OF THE TEST AT LEAST 10 DAYS PRIOR TO THE TEST.
 - F. UPON COMPLETION OF THE SOURCE TEST, THE OPERATOR SHALL SUBMIT A COPY OF THE TEST REPORT NOT LATER THAN THIRTY DAYS FROM THE COMPLETION OF THE TEST.
- [RULE 1303(b)(2)-OFFSETS]
- 8) THE OPERATOR SHALL INSTALL AND MAINTAIN A CONTINUOUS EMISSION MONITORING DEVICE TO ACCURATELY INDICATE THE VOC CONCENTRATION AT THE EXHAUST OF THIS SYSTEM. IN ADDITION:
- A. THE OPERATOR SHALL ALSO INSTALL AND MAINTAIN A DEVICE TO CONTINUOUSLY RECORD THE EMISSIONS BEING MONITORED.
 - B. THE OPERATOR SHALL CALIBRATE THE EMISSION MONITORING DEVICE IN PERCENT BY VOLUME, AS PROPANE.
 - C. THE EMISSION MONITORING DEVICE SHALL BE CALIBRATED ONCE EVERY SIX MONTH.
 - D. WITHIN 180 DAYS OF COMPLETION OF CEMS INSTALLATION, TESTING OF THE CEMS FOR RELATIVE ACCURACY (RA) AND CALIBRATION DRIFT, AS DESCRIBED IN 40 CFR 60 APPENDIX B, SHALL BE CONDUCTED IN CONJUNCTION WITH A VAPOR SYSTEM PERFORMANCE TEST AS REQUIRED BY CONDITION 7. OF THIS PERMIT.

[RULE 462]

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- 9) THE OPERATOR SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF RULE 462, RULE 1149, AND RULE 1173.
[RULE 1149, RULE 1173, RULE 462]
- 10) **THIS PERMIT TO CONSTRUCT SHALL EXPIRE (ONE YEAR FROM DATE OF ISSUANCE, 2013) UNLESS AN EXTENSION IS GRANTED BY THE EXECUTIVE OFFICER OR UNLESS THE EQUIPMENT HAS BEEN CONSTRUCTED AND THE OPERATOR HAS NOTIFIED THE EXECUTIVE OFFICER PRIOR TO THE OPERATION OF THE EQUIPMENT.**
[RULE 205]

Periodic Monitoring:

NONE

Emissions And Requirements:

- 11) THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS
- TOC: 35 MG/L, 40CFR 60 Subpart XX
VOC: 500 PPM_v AS METHANE, RULE 1149
VOC: 0.08 LBS/1000 GAL GASOLINE, RULE 462
VOC: 0.065 LBS/1000 GAL GASOLINE, RULE 1303(b)(2) Offsets
VOC: 98.5% VOC EFFICIENCY, 1303(b)(2) Offsets

RULE 462 COMPLIANCE PLAN PETRO DIAMOND TERMINAL CO

Continuous Monitoring System (CMS) Equipment:

1. CONTINUOUS MONITORING SYSTEM (CMS) CONSISTING OF A DRAEGER HYDROCARBON ANALYZER, AN ALLEN BRADLEY PLC CONTROLLER, AND A TOUCH SCREEN/DATA RECORDER SERVING A MCGILL, INC. CARBON ADSORPTION SYSTEM (PRIMARY SYSTEM)
2. CONTINUOUS MONITORING SYSTEM CONSISTING OF A ZELLWEGER ANALYTICS OPTIMA PLUS GAS ANALYZER AND A FOXBORO, MODEL PR-RSE-1FK, STRIP CHART RECORDER SERVING A MCGILL, INC. CARBON ADSORPTION SYSTEM (OPTIONAL SYSTEM)

Conditions:

1. THE OPERATOR SHALL CONDUCT THE OPERATION OF THIS CMS IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE PLAN APPLICATION UNDER WHICH THIS APPROVAL IS GRANTED, UNLESS OTHERWISE NOTED BELOW.
2. THE CMS SHALL SAMPLE AND ANALYZE GAS FROM THE OUTLET OF THE CARBON CANISTERS TO ACCURATELY MEASURE THE TOTAL HYDROCARBON (THC) CONCENTRATION AT THE EXHAUST OF VAPOR RECOVERY UNIT.
3. THE CMS SHALL PROVIDE AND THE DATA RECORDER SHALL RETAIN THE INSTANTANEOUS THC CONCENTRATION AND A CONTINUOUS 15-MINUTE AVERAGE THC CONCENTRATION, MEASURED AT THE EXHAUST OF THE VAPOR RECOVERY UNIT.
4. THE OPERATOR SHALL MAINTAIN A DISPLAY OF THE THC CONCENTRATIONS IN A LOCATION ACCESSIBLE TO DISTRICT PERSONNEL.
5. DAILY CALIBRATION ERROR TESTS SHALL BE PERFORMED ON THE CMS AT THE LOW (0-20 PERCENT) AND HIGH (80-100 PERCENT) RANGES OF CONCENTRATION. THE CALIBRATION ERROR SHALL NOT EXCEED 2.5 PERCENT OF THE FULL SCALE RANGE.

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6. TESTING OF THE CMS FOR RELATIVE ACCURACY (RA) AND CALIBRATION DRIFT, AS DESCRIBED IN 40 CFR 60 APPENDIX B, SHALL BE CONDUCTED IN CONJUNCTION WITH THE VAPOR RECOVERY SYSTEM PERFORMANCE TESTING REQUIRED BY THE PERMIT FOR THE VAPOR RECOVERY SYSTEM.
7. THE OPERATOR SHALL ENSURE THAT THE CMS IS PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES AND THAT IT MEETS APPLICABLE REQUIREMENTS OF 40 CFR 63.427 AND 40 CFR 60 APPENDIX B, SPECIFICATION 8. THE APPLICABILITY OF 40 CFR 63.427 IS PURSUANT TO AQMD RULE 462(F)(2) AND DOES NOT NECESSARILY IMPLY THAT THE FACILITY IS A MAJOR SOURCE OF HAZARDOUS AIR POLLUTANTS (HAP)S.
8. THE OPERATOR SHALL MAINTAIN THE RECORDING DEVICE IN PROPER OPERATION AT ALL TIMES SUCH THAT IT IS ACCURATELY SYNCHRONIZED WITH THE CORRECT TIME OF DAY.
9. THE RECORDING DEVICE SHALL ARCHIVE DATA IN A SECURE ENCRYPTED FORMAT TO NONVOLATILE DATA STORAGE. DATA SHALL BE RECORDED AT A FREQUENCY OF NOT LESS THAN ONCE PER MINUTE. THE RECORDER/SOFTWARE SHALL BE CAPABLE OF DISPLAYING AND PRINTING OUT PLOTS OF THE THC CONCENTRATION WITHIN 3 HOURS OF A REQUEST. WHERE EXTERNAL STORAGE MEDIA IS USED, IT SHALL BE REPLACED AT A SUFFICIENT FREQUENCY TO ENSURE THAT THE AMOUNT OF STORED DATA IS AT NO MORE THAN 90% OF THE STORAGE CAPACITY OF THE MEDIA.
10. THE RANGE OF THE STRIP CHART RECORDER IN THE BACKUP CEM SHALL BE SET SUCH THAT THE MAXIMUM HYDROCARBON CONCENTRATION, STATED IN THE PERMIT TO OPERATE OR PERMIT TO CONSTRUCT FOR THE VAPOR RECOVERY UNIT, IS BETWEEN 30% AND 90% OF FULL SCALE.
11. THE OPERATOR SHALL NOTIFY THE EXECUTIVE OFFICER, WITHIN 24 HOURS, IN THE EVENT OF A CMS OR RECORDER FAILURE OR SHUTDOWN FOR REPAIR, WHICH EXCEEDS ONE HOUR. THE NOTIFICATION SHALL INCLUDE THE CAUSE AND TIME OF THE FAILURE, THE TIME THE RECORDER RETURNED TO OPERATION, MAINTENANCE OR CORRECTIVE

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WORK PERFORMED AND ACTIONS TAKEN TO PREVENT SUCH FAILURES IN THE FUTURE.
THE CMS OR RECORDER SHALL BE RESTORED TO NORMAL OPERATION WITHIN 96 HOURS
OF THE FAILURE.

12. THE OPERATOR SHALL KEEP RECORDS ON SITE TO SHOW COMPLIANCE WITH
CONDITIONS OF THIS PLAN APPROVAL. SUCH RECORDS SHALL BE KEPT FOR AT LEAST
FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.