Facility I.D.#: 800079
Revision #: DRAFT
Date: August 6, 2009

FACILITY PERMIT TO OPERATE
PETRO DIAMOND TERMINAL CO

PERMIT TO OPERATE

Permit No. TBD
A/N 496153

Equipment Description:

STORAGE TANK, TK-10, INTERNAL FLOATING ROOF, WELDED SHELL, 50,000 BARREL CAPACITY, 78'-0" DIA. X 64'-0" H., WITH A PONTOON INTERNAL FLOATING ROOF, A METALLIC SHOE TYPE PRIMARY SEAL, A WIPER TYPE SECONDARY SEAL, AND A VAPOR RECOVERY DEGASSING CONNECTION.

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 300,000 BARREL(S) IN ANY ONE MONTH.

   FOR THE PURPOSE OF THIS CONDITION, THROUGHPUT SHALL BE DEFINED AS GASOLINE, ETHANOL, DIESEL, GASOLINE BLENDING COMPONENTS, JET FUEL, NAPHTHA, ALKYLATES, AND OXYGENATES.

   THE OPERATOR SHALL CALCULATE THE THROUGHPUT, IN BARRELS, BY THE FOLLOWING EQUATION: [V / H(SUBSCRIPT: t)] X H(SUBSCRIPT: a), WHERE V IS THE VOLUME OF THE TANK IN BARRELS, H(SUBSCRIPT: t) IS THE HEIGHT OF THE TANK IN FEET BASED ON TANK STRAPPING CHART AND H(SUBSCRIPT: a) IS THE TOTAL VERTICAL ONE-WAY LIQUID SURFACE LEVEL TRAVEL IN FEET PER MONTH. ALL MEASUREMENTS SHALL BE MADE IN ACCORDANCE WITH THE PROCEDURES PUBLISHED IN THE MOST RECENT EDITION OF THE AMERICAN PETROLEUM INSTITUTE MANUAL OF PETROLEUM MEASUREMENT STANDARDS.

   AN AUTOMATIC TANK LEVEL GAUGE (ATLG) SHALL BE USED TO CONTINUOUSLY MONITOR AND RECORD THE LIQUID SURFACE LEVEL MOVEMENT. THE ATLG SHALL BE VERIFIED ONCE PER QUARTER BY COMPARING AGAINST A MANUAL TANK LEVEL MEASUREMENT. IF THE ATLG DIFFERS FROM THE MANUAL TANK LEVEL MEASUREMENT BY MORE THAN 0. 8 PERCENT, THE ATLG SHALL BE REPAIRED. WHILE THE ATLG IS BEING REPAIRED, THROUGHPUT SHALL BE DETERMINED BY HOURLY TANK LEVEL DATA AVERAGED FOR THE PREVIOUS 30 DAYS, PRIOR TO THE DISCOVERY OF THE DISCREPANCY.

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THE OPERATOR SHALL CALCULATE THE TOTAL ONE-WAY LIQUID SURFACE LEVEL MOVEMENT, IN FEET, ON A MONTHLY BASIS.

FOR THE PURPOSE OF THIS CONDITION, CONTINUOUS MONITORING AND RECORDING SHALL BE DEFINED AS ONCE PER HOUR.

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

4) TANK CLEANING AND DEGASSING OPERATIONS SHALL COMPLY WITH THE DISTRICT'S RULE 1149, AND RECORDS OF OPERATION REQUIRED UNDER THIS RULE SHALL BE MAINTAINED FOR A PERIOD OF AT LEAST FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

[RULE 1149]

5) THE OPERATOR SHALL ONLY VENT THIS EQUIPMENT TO THE VAPOR RECOVERY SYSTEM DURING DEGASSING OPERATIONS AND TANK REFILLING UNTIL THE ROOF IS FLOATING. THE VAPOR COLLECTION SYSTEM CONNECTION TO THIS TANK SHALL REMAIN CLOSED EXCEPT DURING TANK DEGASSING AND REFILLING UNTIL THE ROOF IS FLOATING. SIMULTANEOUS VENTING FROM MORE THAN ONE TANK AT A TIME SHALL NOT BE ALLOWED.

[RULE 1149; RULE 1303(a)(1)-BACT]

6) IN ADDITION TO THOSE RECORDS REQUIRED BY RULE 463, THROUGHPUT RECORDS SHALL BE MAINTAINED FOR A PERIOD OF AT LEAST FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

[RULE 463]

Periodic Monitoring

NONE

Emissions And Requirements:

7) THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS

VOC: RULE 463
VOC: RULE 1178
VOC: RULE 1149
VOC: 40CFR60, SUBPART Kb

FACILITY PERMIT TO OPERATE
PETRO DIAMOND TERMINAL CO

PERMIT TO CONSTRUCT

Permit No. N/A
A/N 496876

Equipment Description:

ALTERATION OF AN EXISTING BULK LOADING/UNLOADING RACK NO. 1 (PERMITTED UNDER A/N 431990: P/O F71069), CONSISTING OF:

1. TWO UNLOADING CONNECTIONS, 0'-4"DIA. EACH
2. POSITIVE DISPLACEMENT PUMP, P-18, WITH A 15 HP ELECTRIC MOTOR
3. POSITIVE DISPLACEMENT PUMP, P-19, WITH A 15 HP ELECTRIC MOTOR
4. POSITIVE DISPLACEMENT PUMP, P-20, WITH A 10 HP ELECTRIC MOTOR
5. POSITIVE DISPLACEMENT PUMP, P-21, WITH A 10 HP ELECTRIC MOTOR

BY THE ADDITION OF:

1. TWO BOTTOM LOADING ARMS, 0'4" DIA. EACH
2. TWO VAPOR COLLECTION HOSES TO ONE VAPOR RETURN LINE, VENTING TO A VAPOR RECOVERY SYSTEM, 0'-4" DIA.
3. TWO METERS
4. LOADING PUMPS, NOS. P-1 THROUGH P-10 (COMMON TO MARINE TERMINAL AND RACK NOS. 3, 4, AND 5), CENTRIFUGAL, EACH WITH A MECHANICAL SEAL, 75 HP EACH.

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]

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Permit No. N/A
A/N 496876

3) LOADING OPERATIONS AT THIS EQUIPMENT SHALL BE LIMITED TO LOADING OF DIESEL AND BIODIESEL INTO TANK TRUCKS, AND DISPLACED VAPORS SHALL BE VENTED TO A VAPOR RECOVERY UNIT WHICH IS IN FULL USE AND HAS BEEN ISSUED A PERMIT BY THE AQMD.

[RULE 1303(a)(1)-BACT, 1303(b)(2)-OFFSETS, 1401]

4) THE TOTAL COMBINED LOADING THROUGHPUT OF DIESEL OR BIODIESEL FROM THIS EQUIPMENT SHALL NOT EXCEED 617,142 BARRELS IN ANY ONE MONTH.

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

5) THE TOTAL COMBINED UNLOADING THROUGHPUT OF ETHANOL AND NAPHTHA FROM THIS RACK SHALL NOT EXCEED 100,000 BARRELS IN ANY ONE MONTH.

[RULE 1303(b)(2)-Offset]

6) THE OPERATOR SHALL KEEP THROUGHOUT RECORDS FOR AT LEAST FIVE YEARS. THESE RECORDS SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

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

7) ALL NEW VALVES AND MAJOR COMPONENTS IN VOC SERVICE AS DEFINED IN RULE 1173, EXCEPT THOSE SPECIFICALLY EXEMPTED BY RULE 1173, SHALL BE DISTINCTLY IDENTIFIED FROM OTHER COMPONENTS THROUGH THEIR TAG NUMBER (e.g. NUMBERS ENDING IN THE LETTER "N") AND SHALL BE NOTED IN THE RECORDS.

ALL NEW FUGITIVE COMPONENTS IN VOC SERVICE, EXCEPT VALVES AND FLANGES, SHALL BE INSPECTED QUARTERLY USING EPA REFERENCE METHOD 21. ALL NEW VALVES AND FLANGES IN VOC SERVICE SHALL BE INSPECTED MONTHLY USING EPA METHOD 21.

FOR ALL NEW FUGITIVE COMPONENTS IN VOC SERVICE, ANY LEAK GREATER THAN 250 PPM, MEASURED AS METHANE, ABOVE BACKGROUND, AS MEASURED USING EPA METHOD 21, SHALL BE REPAIRED WITHIN 14 DAYS OF DETECTION. COMPONENTS SHALL BE DEFINED AS ANY VALVE, FITTING, PUMP, COMPRESSOR, PRESSURE RELIEF VALVE, DIAPHRAGM, HATCH, SIGHT-GLASS, AND METER.

IF 98.0 PERCENT OR GREATER OF THE NEW (NON-BELLOWS-SEALED) VALVES AND THE NEW FLANGE POPULATION INSPECTED IS FOUND TO LEAK GASEOUS OR LIQUID VOLATILE ORGANIC COMPOUNDS AT A RATE LESS THAN 250 PPM FOR TWO CONSECUTIVE MONTHS, THEN THE OPERATOR SHALL REVERT TO A QUARTERLY INSPECTION PROGRAM WITH THE APPROVAL OF THE DISTRICT.

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Permit No. N/A
A/N 496876

THE OPERATOR SHALL REVERT FROM QUARTERLY TO MONTHLY INSPECTION PROGRAM IF LESS THAN 98.0 PERCENT OF THE NEW (NON-BELLOWS SEAL) VALVES AND THE NEW FLANGE POPULATION IS FOUND TO LEAK GASEOUS OR LIQUID VOLATLE ORGANIC COMPOUNDS AT A RATE OF LESS THAN 250 PPM.

THE OPERATOR SHALL KEEP RECORDS OF THE MONTHLY INSPECTION (AND QUARTERLY, WHERE APPLICABLE), SUBSEQUENT REPAIR, AND REINSPECTION, IN A MANNER APPROVED BY THE DISTRICT.

[RULE 1173, 1303(b)2)-OFFSET, 1401]

8) THE OPERATOR SHALL PROVIDE TO THE DISTRICT, NO LATER THAN 60 DAYS AFTER COMPLETION OF CONSTRUCTION, A RECALCULATION OF THE FUGITIVE EMISSIONS BASED ON ACTUAL COMPONENTS INSTALLED AND/OR REMOVED FROM SERVICE. THE OPERATOR SHALL ALSO PROVIDE COMPLETE, AS BUILT, PIPING AND INSTRUMENTATION DIAGRAM(S) WITH A LISTING OF ALL NON-LEAKLESS TYPE VALVES CATEGORIZED BY TAG NO. SIZE, TYPE SERVICE, OPERATING CONDITIONS (i.e. TEMPERATURE AND PRESSURE), BODY MATERIAL, APPLICATION.
[RULE 1303(b)(2)-OFFSET, 1401]

9) THIS PERMIT TO CONSTRUCT SHALL EXPIRE ONE YEAR FROM DATE OF ISSUANCE UNLESS AN EXTENSION IS GRANTED BY THE EXECUTIVE OFFICER.

[RULE 205]

Periodic Monitoring

10) THE OPERATOR SHALL INSTALL AND MAINTAIN FLOW METER(S) TO MEASURE AND RECORD DIESEL AND/OR BIODIESEL LOADING RATE.

[RULE 1303(a)(1)-BACT, 3004(a)(4)]

Emissions and Requirements: NONE

FACILITY PERMIT TO OPERATE
PETRO DIAMOND TERMINAL CO

PERMIT TO OPERATE

Permit No. TBD
A/N 497924

Equipment Description:

STORAGE TANK NO. 9, INTERNAL FLOATING ROOF, 22'-0" DIA. X 40'-0" H., 2500 BBL CAPACITY, WITH A VAPOR RECOVERY DEGASSING CONNECTION, WITH A FLOATING ROOF, PONTOON, WELDED SHELL, WITH A MECHANICAL SHOE PRIMARY SEAL, AND A RIM-MOUNTED SECONDARY SEAL.

Conditions

1) OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THIS 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 TANK SHALL NOT BE USED FOR STORING ORGANIC LIQUIDS HAVING A VAPOR PRESSURE OF 569 MM Hg (11 PSIA) OR GREATER UNDER ACTUAL OPERATING CONDITIONS.

   [RULE 1303(b)(2)-Offset, 40CFR60 SUBPART Ka]

4) THE OPERATOR SHALL USE AN EXPLOSIMETER TO MONITOR THE HYDROCARBON CONCENTRATION IN THE VAPOR SPACE ABOVE THE INTERNAL FLOATING ROOF TWICE A YEAR AT A 4 TO 8 MONTH INTERVAL. THE HYDROCARBON CONCENTRATION SHALL NOT EXCEED 50 PERCENT OF THE LOWER EXPLOSIVE LIMIT.

   [RULE 1178]

5) THIS TANK SHALL NOT BE VENTED THROUGH THE DEGASSING VAPOR LINE UNLESS THE VAPOR RECOVERY SYSTEM DESIGNED FOR THIS SERVICE HAS BEEN ISSUED A PERMIT TO CONSTRUCT OR PERMIT TO OPERATE BY THE EXECUTIVE OFFICER, AND IS IN FULL USE.

   [RULE 1149; RULE 1303(a)(1)-BACT]

FACILITY PERMIT TO OPERATE
PETRO DIAMOND TERMINAL CO

Permit No. TBD
A/N 497924

6) THE OPERATOR SHALL ONLY VENT THIS EQUIPMENT TO THE VAPOR RECOVERY SYSTEM DURING DEGASSING OPERATIONS AND TANK REFILLING UNTIL THE ROOF IS FLOATING. THE VAPOR COLLECTION SYSTEM CONNECTION TO THIS TANK SHALL REMAIN CLOSED EXCEPT DURING TANK DEGASSING AND REFILLING UNTIL THE ROOF IS FLOATING. SIMULTANEOUS VENTING FROM MORE THAN ONE TANK AT A TIME SHALL NOT BE ALLOWED.

[RULE 1149; RULE 1303(a)(1)-BACT]

7) THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE DISTRICT, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):

TYPE OF PRODUCT STORED, ITS THROUGHPUT, AND ITS TRUE VAPOR PRESSURE UNDER ACTUAL STORAGE CONDITIONS.

[RULE 463, 40 CFR60 SUBPART Ka]

Periodic Monitoring

NONE

Emissions And Requirements:

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

VOC: RULE 463
VOC: RULE 1178
VOC: RULE 1149
VOC: 40CFR60, SUBPART Ka

FACILITY PERMIT TO OPERATE
PETRO DIAMOND TERMINAL CO

PERMIT TO CONSTRUCT

Permit No. N/A
A/N 499972

Equipment Description:

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

FACILITY PERMIT TO OPERATE
PETRO DIAMOND TERMINAL CO

Permit No. N/A
A/N 499972

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 VOC 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 324655), UNLESS OTHERWISE NOTED BELOW.

   B. THE VOC CONCENTRATION OF THE EXHAUST GAS SHALL BE MEASURED IN PERCENT PROPANE.

   C. THE OPERATOR SHALL SET THE RANGE OF THE STRIP CHART TO RECORD BETWEEN ZERO AND FIVE (5) PERCENT PROPANE BY VOLUME. 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 $\pm$ 1 PERCENT.

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D. THE VOC CONCENTRATION AT THE EXHAUST OF THE VAPOR RECOVERY SYSTEM, MEASURED BY THE CEMS, SHALL NOT EXCEED 0.87 PERCENT BY VOLUME, AS PROPANE. 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 (0.70 PERCENT BY VOLUME, AS PROPANE). THE OPERATOR SHALL SHUT DOWN THE LOADING RACKS WHEN THE 0.87 PERCENT LIMIT IS REACHED.

E. 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.

F. 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.

G. 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.

H. 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]

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 THE NEXT SCHEDULED TEST DATE BUT NOT LATER THAN 365 DAYS AFTER COMPLETION OF THE ALTERATION TO THE LOADING RACK.

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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.

[RULE 462]

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 UNLESS AN EXTENSION IS GRANTED BY THE EXECUTIVE OFFICER.

[RULE 205]

FACILITY PERMIT TO OPERATE
PETRO DIAMOND TERMINAL CO

Permit No. N/A
A/N 499972

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 PPMv 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

OWNER/OPERATOR:

COID: 800079

PETRO DIAMOND TERMINAL COMPANY
18401 VON KARMAN AVENUE, SUITE 300
IRVINE, CA 92612

CONTACT PERSON: ERIC CONARD
MANAGER, ENV AND BUS. DEVELOPMENT
(949) 553-0112
econard@petrodiamond.com

EQUIPMENT LOCATION:

1920 LUGGER WAY, BERTH 83
LONG BEACH, CA 90813

CONTACT: PAT KENNEDY, TERMINAL MANAGER
(562) 435-8364
PatK@petrodiamond.com

EQUIPMENT DESCRIPTION

SEE ATTACHED PAGES FOR PERMITS

INTRODUCTION:

Petro Diamond stores and distributed petroleum distillates, oxygenates and related products. Products are received via pipeline, ship/barge, and tanker trucks.

These applications were submitted as follows:

A/N	Previous A/N : P/O	Equipment	Reason for application
496153	407330 : F62625 (Gasoline, diesel, ethanol) Prev Emis R2=12 lb/D = 0.5 lb/hr	Tank No. 10	Add gasoline blending components, jet fuel, naphtha, alkylates and oxygenates (change of conditions) Correct tank diameter to 78 ft. instead of 90 ft.
496876	431990 : F71069 (Unload only) PrevEmisR2= 6.11 lb/D = 0.25 lb/hr	Rack No. 1	Add diesel/biodiesel and "loading arms/assoc. components" (Modification)
497924	246842 : D63114 Prev Emis R2=14 lb/d = 0.36 lb/hr	Tank No. 9	Upgrade seal (Admin. Change)
499972	434295 : F98298	Vapor Recovery System – Carbon Adsorption	Add connection to Rack no. 1 (modification)
500379	340344 (Initial Rev. 0)	TV Facility Permit	TV Revision (De Minimus Significant)

There have been no NOV's or NC's within the last three years for this facility.
There are no schools within 1000 feet of this facility.

A/N 496153: Tank No. 10 – Change of condition by addition of commodity

This was submitted to add gasoline blending components, jet fuel, naphtha, alkylates, and oxygenates to an existing tank that currently stores gasoline, ethanol and diesel. Thruput of 300,000 bbl/mo remains the same.

TANKS program using iso-octane vs. gasoline with RVP=10 psia. Previous application 407330 used RVP = 13 psia in TANKS program (see attached TANKs printout from 407330). Since the vapor pressure of the additional commodities are lower, there will be NO emission increase with the new commodities.

Rules:

402: Nuisance is not expected

463: Tank has primary and secondary seals and is expected to comply with this rule.

1149: Tank degassing and cleaning operations will comply with this rule.

1178: This internal floating roof tank will comply with applicable requirements of this rule.

Reg 13: Not applicable since there is no emission increase from this change of condition. Previous emissions from A/N 407330 show R1=R2= 0.5 lb/hr and 12 lb/day. The same entry will be entered.

1401: The new commodities have lower vapor pressures, and the existing commodity (gasoline) is already considered worse –case for risk. Therefore, there will be no increase in risk.

40CFR60 Kb: This tank is currently subject to Kb and is expected to comply with all applicable requirements.

Title V: This permit will be issued as a revision to the existing Title V Permit (under A/N 500379) after a 45-day EPA review period.

RECOMMENDATION:

A Permit to Operate is recommended with the attached conditions.

A/N 496876 & 499972: Bulk Load/Unload and Vapor Recovery System

These applications were submitted to modify an existing permit to allow **loading** of diesel and biodiesel (methyl ester) not to exceed 617,142 bbl/mo (25,919,964 gal/mo). The existing permit only allows **unloading** of naptha and ethanol not to exceed a combined thruput of 100,000 bbl/mo. There is currently no vapor connection between Rack 1 and the VRS.

Thruput at the terminal/facility will not increase. Instead, diesel and biodiesel tanker trucks will be re-directed to this rack no. 1 from the other three existing racks. However, thruput increase and commodity change does "occur" this modified rack no. 1

As part of this modification, Petro Diamond will add two loading arms, two vapor collection hoses to one vapor return line, and assorted support equipment.

Since diesel and biodiesel has a true vapor pressure of 0.01 psia (less than 1.5 psia), this rack is not subject to R462. However, a vapor return line will also be added and the vapor recovery unit will be in operation whenever diesel or biodiesel is loaded.

CALCULATIONS:

Bulk Loading Losses: VOC emissions from loading petroleum products into tank trucks can be calculated by using the equation in EPA AP-42, 5.2:

$$L = 12.46\ SPM/T$$

Where: L = VOC emissions in lbs/1000 gal loaded
M = Molecular wt. of vapor, 130 lbs/ lb-mole (distillate no. 2 Table 7.1-2, AP-42)
P = True VP, 1.5 psia (max limit for comparison only)
P = True VP, 0.01 psia (diesel MSDS shows VP = 0.4 mmHg = 0.01 psia)
P = True VP, 0.02 psia (biodiesel/methyl ester MSDS shows VP<1mmHG = <0.02 psia)
T = 525 deg R (65 F + 460)(from SABs June 2009 VRS submittal pg 3)
S = Saturation factor, 1.0 (submerged fill, ded. vapor balance, Table 5.2-1,AP-42)
eff = control efficiency; 0% for uncontrolled and 99% or 98.5% for controlled

For uncontrolled, L (VP=1.5 psia) = 4.63 lbs/1000 gals loaded
L (VP=0.01 psia) = 0.031 lb/1000 gal loaded
L (VP = 0.02 psia) = 0.062 lb/1000 gal

R1(ROG) = 0.062 lb/1000 gal * 25,919,964 gal/mo * 1/30
= 53.6 lb/day
= 19284.5 lb/yr
= 9.6 tpy
= 2.23 lb/hr

For controlled (99% eff), L = (0.062 lb/1000 gal loaded)(1-0.99)
= 0.00062 lbs/1000gals loaded

For controlled (98.5% eff – more conservative), L = (0.062 lb/1000 gal)(1-0.985)
= 0.00093 lb/1000 gal loaded

Note: A 98.5% destruction is conservatively assumed for the VRS based on gasoline loading as follows:

Uncontrolled L (VP gasoline = 6.2 psia) = 12.46 SPM/T, where M = 66 lb/lbm
= 9.7 lb/1000 gallons gasoline

Allowable by permit condition controlled L = 0.065 lb/1000 gal

% eff = 99.3%

R2(ROG)@99% = 0.00062 lb/1000 gal * 25,919,964 gal/mo * 1/30
= 0.53 lb/day
*1/24 = 0.022 lb/hr

R2(ROG)@98.5% = 0.00093 lb/1000 gal * 25,919,964 gal/mo *1/30
= 0.80 lb/day
***1/24 = 0.033 lb/hr**

In order to demonstrate compliance with the 98.5% destruction efficiency (which is equivalent to 0.00047 lb/1000 gal), a source test done with diesel loading only is not required. Instead, the R462 CARB certification testing will be used as a "surrogate" with the assumption that if the CARB testing demonstrate at least 98.5% during gasoline loading, the it should also demonstrate 98.5% during diesel loading. The most recent CARB testing was Jan 2009. Per the permit condition, another test will be conducted within the next year to demonstrate compliance.

Fugitives:
Based on Spreadsheet submitted with application Appendix B, the fugitive emissions are 1.47 lb/day (at 500 ppm) or 0.9 lb/day (at 250 ppm). A permit condition will be added to limit the new components to 250 ppm.

Previous Emission A/N 431990	New Loading	New Fugitives @250 ppm	New Total	Increase
0.25 lb/hr	0.033 lb/hr	0.038 lb/hr	0.31 lb/hr	0.07 lb/hr
6.11 lb/day	0.80 lb/day	0.9 lb/day	7.81 lb/day	1.7 lb/day

ERC needed: 1.7 * 1.2 = 2.04 lb/day

Need 2 lbs ERC

Certificates Available: AQ 005686 30 lbs
AQ 005816 18 lbs

Toxic Emissions:

TAC emissions lb/yr = wt.% * (7.81 lb/day*365 day/yr)

= wt% * (2850.7 lb/yr)

TAC Emissions Loading (Wt.% from SABs Diesel Speciation email July 16, 2009)

TAC	Wt.% in Vapor	Emissions, lbs/yr	Emissions, lb/hr
Benzene	0.20	5.70	0.00065
Ethylbenzene	0.32	9.12	0.0010
n-Hexane	0.04	1.14	0.00013
Toluene	2.3	65.6	0.0075
Naphthalene	0.13	3.71	0.00042

Stack Height: 50 feet

Residential receptor = 100 meters

Commercial receptor = 50 meters

Based on Tier 2 screening (see attached spreadsheet)(Note that HRA was performed on the more conservative "total" risk instead of "increase in risk"):

MICRres = 3.33E-7
MICRcomm = 7.3E-8
HIA < 1
HIC < 1

EVALUATION:

Rules:

401: No visible emissions are expected.

402: No nuisance is expected with proper operational procedures and mitigation measures.

462: This rule is not applicable for this modification since diesel and biodiesel have true vapor pressure less than 1.5 psia. However, the VRS equipment is currently subject to R462 since it also controls displaced vapors from the loading of products with vapor pressure at 1.5 or greater psia.

1173: This facility is expected to comply with the requirements of this rule. New fugitive components will be limited to 250 ppm, which is less than the allowable 500 ppm for heavy liquid service.

Reg 13: There is an emission increase of 53.6 lb/day of ROG before control during loading operations. BACT/LAER for loading operations is vapor return to a VRS. Controlled emissions are 0.80 lbsday ROG.

There is 0.9 lb/day (less than 1 lb/day) ROG of fugitives due to the additional components associated with this modification. Thus, BACT for fugitives is not required.

OFFSETS: Total emission increases of 1.7 lb of ROG will require 2 lbs of ERCs

MODELING: Not required for ROG.

MAJOR POLLUTING FACILITY: Statewide Compliance: PetroDiamond operates no other facility in California.

1401: Total risk from this rack/VRS modification is less than one in a million. HIC and HIA are less than one. Compliance

40CFR60 XX: The VRU is currently subject to XX due to gasoline loading at the facility. This modification by the addition of diesel/biodiesel loading vapor return lines is not subject to XX.

Title V: These permits will be issued as a revision (De Minimus) to the existing Title V Permit (under A/N 500379) after a 45-day EPA review period since there is an emission increase of VOC = 1.7 lb/day. However, no NSPS or NESHAP is triggered with this increase.

This project will meet all District Rules and Regulations. It is recommended that Permits to Construct be granted subject to the attached conditions.

A/N 497924: Tank TK-9

This is an administrative change (no engineering evaluation required) to upgrade seal from single seal to double seals.

Previous A/N : P/O	Existing Seal(s)	New Seal(s)
A/N 246842 : D63114	Primary Seal: Liquid mounted, resilient foam filled Secondary seal: none	Primary Seal: Mechanical shoe Secondary Seal: Rim mounted

There are no emission increases from this change.

The seals will comply with Rule 463 requirements.

Emissions from previous application will be transferred to this new application.

ROG R1 = 7.2 lb/hr
ROG R2 = 0.36 lb/hr
ROG Av30 = 14 lb/day

Proposed hours of operation will be 24 hr/day, 7 days/week.

RECOMMENDATION:
Issue Permit to Operate as part of a TV revision (A/N 500379) with new seal descriptions

TIER 2 SCREENING RISK ASSESSMENT

Application deemed complete date:	07/16/09
A/N:	496876&499972
Fac:	PetroDiamond800079

Stack Data		Units
Hour/Day	24	hr/day
Day/Week	7	day/wk
Week/Year	52	wk/yr
Emission Units	lb/hr	
		0
Control Efficiency	0.00	fraction range 0-1
Does source have TBACT?	NO	
Point or Volume Source ?	P	P or V
Stack Height or Building Height	50	feet
Area (For Volume Source Only)		ft^2
Distance-Residential	100	meters
Distance-Commercial	50	meters
Meteorological Station	Long Beach	

Source Type:	O - Other	
Screening Mode	NO	

Emission Units	lb/hr	
Source output capacity	n/a	n/a

FOR USER-DEFINED CHEMICALS AND EMISSIONS, FILL IN THE TABLE BELOW

USER DEFINED CHEMICALS AND EMISSIONS				R1 - Uncontrolled	Efficiency Factor	R2 - Controlled
Code	Compound	lb/hr	Molecular Weight	lbs/hr	Fraction range 0-1	lbs/hr
b1	Benzene (including benzene from gasoline)	6.50E-04	78.11	0.00065		0.00065
e4	Ethyl benzene	1.00E-03	106.16	0.001		0.001
h8	Hexane (n-)	1.30E-04	86.18	0.00013		0.00013
t3	Toluene (methyl benzene)	7.50E-03	92.13	0.0075		0.0075
p30	Napthalene	0.00042	128.1732	0.00042		0.00042
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TIER 2 SCREENING RISK ASSESSMENT

A/N:	496876&499972
Fac:	PetroDiamond800079

Application deemed complete date: 07/16/09

2. Tier 2 Data

MET Factor	1.00
4 hr	0.89
6 or 7 hrs	0.73

Dispersion Factors

3	3A & 3B For Chronic X/Q
6	For Acute X/Q

Dilution Factors (ug/m3)/(tons/yr)

Receptor	X/Q	X/Qmax
Residential	2.12	92.4
Commercial	2.38	110.1

Adjustment and Intake Factors

	Afann	DBR	EVF
Residential	1	302	0.96
Worker	1	149	0.38

3. Rule 1401 Compound Data

Compound	R1 - uncontrolled (lbs/hr)	R2 - controlled (lbs/hr)	CP	MP MICR Resident	MP MICR Worker	MP Chronic Resident	MP Chronic Worker	REL Chronic	REL Acute
Benzene (including benzene from gasoline)	6.50E-04	6.50E-04	1.00E-01	1.0000	1.0000	1.0000	1.0000	60	1300
Ethyl benzene	1.00E-03	1.00E-03	8.70E-03	1	1	1	1	2000	
Hexane (n-)	1.30E-04	1.30E-04		1	1	1	1.0000	7000	
Toluene (methyl benzene)	7.50E-03	7.50E-03		1	1	1	1	300	37000
Napthalene	4.20E-04	4.20E-04	1.20E-01	1.0000	1.0000	1	1	9	

4. Emission Calculations

Compound	uncontrolled R1 (lb/hr)	controlled R2 (lb/hr)	R2 (lb/yr)	R2 (ton/yr)
Benzene (including benzene from gasoline)	6.50E-04	6.50E-04	5.6784	0.0028392
Ethyl benzene	1.00E-03	1.00E-03	8.736	0.004368
Hexane (n-)	1.30E-04	1.30E-04	1.13568	0.00056784
Toluene (methyl benzene)	7.50E-03	7.50E-03	65.52	0.03276
Napthalene	4.20E-04	4.20E-04	3.66912	0.00183456
Total	9.70E-03	9.70E-03	8.47E+01	4.24E-02

A/N: 496876&499972

Application deemed complete date: 07/16/09

TIER 2 RESULTS

5a. MICR

MICR = CP (mg/(kg-day))^-1 * Q (ton/yr) * (X/Q) * Afann * Met * DBR * EVF * 1.E-6 * MP

Compound	Residential	Commercial
Benzene (including benzene from gasoline)	1.75E-07	3.83E-08
Ethyl benzene	2.34E-08	5.12E-09
Hexane (n-)		
Toluene (methyl benzene)		
Napthalene	1.35E-07	2.97E-08
Total	**3.33E-07**	**7.30E-08**
	PASS	**PASS**

No Cancer Burden, MICR<1.0E-6

5b. Cancer Burden	no
X/Q for one-in-a-million:	
Distance (meter)	no data
Area (km2):	
Population:	
Cancer Burden:	

6. Hazard Index

HIA = [Q(lb/hr) * (X/Q)max] * AF / Acute REL

HIC = [Q(ton/yr) * (X/Q) * MET * MP] / Chronic REL

Target Organs	Acute	Chronic	Acute Pass/Fail	Chronic Pass/Fail
Alimentary system (liver) - AL		5.20E-06	Pass	Pass
Bones and teeth - BN			Pass	Pass
Cardiovascular system - CV			Pass	Pass
Developmental - DEV	7.02E-05	3.78E-04	Pass	Pass
Endocrine system - END		5.20E-06	Pass	Pass
Eye	2.23E-05		Pass	Pass
Hematopoietic system - HEM	4.79E-05	1.13E-04	Pass	Pass
Immune system - IMM	4.79E-05		Pass	Pass
Kidney - KID		5.20E-06	Pass	Pass
Nervous system - NS	2.23E-05	3.73E-04	Pass	Pass
Reproductive system - REP	7.02E-05		Pass	Pass
Respiratory system - RES	2.23E-05	7.45E-04	Pass	Pass
Skin			Pass	Pass

A/N: 496876&499972 Application deemed complete date: 07/16/09

6a. Hazard Index Acute

HIA = [Q(lb/hr) * (X/Q)max] *AF/ Acute REL

	HIA - Residential									
Compound	AL	CV	DEV	EYE	HEM	IMM	NS	REP	RESP	SKIN
Benzene (including benzene from gasoline)			4.02E-05		4.02E-05	4.02E-05		4.02E-05		
Ethyl benzene										
Hexane (n-)										
Toluene (methyl benzene)			1.87E-05	1.87E-05			1.87E-05	1.87E-05	1.87E-05	
Napthalene										
Total			5.89E-05	1.87E-05	4.02E-05	4.02E-05	1.87E-05	5.89E-05	1.87E-05	

	HIA - Commercial									
Compound	AL	CV	DEV	EYE	HEM	IMM	NS	REP	RESP	SKIN
Benzene (including benzene from gasoline)			4.79E-05		4.79E-05	4.79E-05		4.79E-05		
Ethyl benzene										
Hexane (n-)										
Toluene (methyl benzene)			2.23E-05	2.23E-05			2.23E-05	2.23E-05	2.23E-05	
Napthalene										
Total			7.02E-05	2.23E-05	4.79E-05	4.79E-05	2.23E-05	7.02E-05	2.23E-05	.

6b. Hazard Index Chronic

HIC = [Q(ton/yr) * (X/Q) * MET * MP] / Chronic REL

	HIC - Residential												
Compound	AL	BN	CV	DEV	END	EYE	HEM	IMM	KID	NS	REP	RESP	SKIN
Benzene (including benzene from gasoline)				1.00E-04			1.00E-04			1.00E-04			
Ethyl benzene	4.63E-06			4.63E-06	4.63E-06				4.63E-06				
Hexane (n-)										1.72E-07			
Toluene (methyl benzene)				2.32E-04						2.32E-04		2.32E-04	
Napthalene												4.32E-04	
Total	4.63E-06			3.36E-04	4.63E-06		1.00E-04		4.63E-06	3.32E-04		6.64E-04	

A/N: 4968768499972 Application deemed complete date: 07/16/09

6b. Hazard Index Chronic (cont.)

	HIC - Commercial												
Compound	AL	BN	CV	DEV	END	EYE	HEM	IMM	KID	NS	REP	RESP	SKIN
Benzene (including benzene from gasoline)				1.13E-04			1.13E-04			1.13E-04			
Ethyl benzene	5.20E-06			5.20E-06	5.20E-06				5.20E-06				
Hexane (n-)										1.93E-07			
Toluene (methyl benzene)				2.60E-04						2.60E-04		2.60E-04	
Napthalene												4.85E-04	
Total	5.20E-06			3.78E-04	5.20E-06		1.13E-04		5.20E-06	3.73E-04		7.45E-04	