

FACILITY PERMIT TO OPERATE ARCO TERMINAL SERVICES CORPORATION

PERMIT TO CONSTRUCT

A/N 510725
DRAFT

Equipment Description:

MODIFICATION OF THE VAPOR RECOVERY SYSTEM (SERVING BULK PETROLEUM DISTILLATE STORAGE AND LOADING TERMINAL RACK NO. 1 AND STORAGE TANKS NOS. 764, 765 AND 791-797) CONSISTING OF:

1. VAPOR BLADDER TANK (NO. 766) 70'-0" DIA. X 64'-0" H., DOME ROOF WITH RING TYPE URETHANE BLADDER.
2. THREE (3) COMPRESSION-ADSORPTION 2-STAGE VAPOR RECOVERY UNITS, 7'-6" L. X 17'-6" W. X 8'-8" H., NICHOLS, IN PARALLEL CONFIGURATION, 300 CFM (900 CFM TOTAL) CAPACITY WITH RECOVERED PRODUCT RECYCLE; 136 HP TOTAL PER UNIT. COMPRESSOR, 100 HP; ADSORBER PUMP, 25 HP; RETURN, 10 HP.
3. VAPOR COMBUSTION FLARE, ENCLOSED GROUND LEVEL TYPE, 6'-0" W. X 12' - 14' L. MAXON VEE TYPE HASTOLOV EXCESS AIR BURNERS WITH 7.5 MMBTU/HR TOTAL MAXIMUM HEAT RELEASE @ 900 CFM VAPOR FLOW; 5'-4" DIA. X 15-20' H. DISCHARGE STACK; 8 HP TOTAL (AIR BLOWER, 5 HP, AND VENT BLOWER 3 HP), WITH MAKE-UP/PROPANE/NATURAL GAS LINE CONNECTED TO THE COMBUSTION CHAMBER.
4. EQUALIZER/SATURATOR TANK, 4,500 GAL. CAPACITY.

BY THE REMOVAL OF:

1. THREE (3) COMPRESSION-ADSORPTION 2-STAGE VAPOR RECOVERY UNIT, 7'-6" L. X 17'-6" W. X 8'-8" H., NICHOLS, IN PARALLEL CONFIGURATION, 300 CFM (900 CFM TOTAL) CAPACITY WITH RECOVERED PRODUCT RECYCLE; 136 HP TOTAL PER UNIT. COMPRESSOR, 100 HP; ADSORBER PUMP, 25 HP; RETURN, 10 HP.
2. VAPOR COMBUSTION FLARE, ENCLOSED GROUND LEVEL TYPE, 6'-0" W. X 12' - 14' L. MAXON VEE TYPE HASTOLOV EXCESS AIR BURNERS WITH 7.5 MMBTU/HR TOTAL MAXIMUM HEAT RELEASE @ 900 CFM VAPOR FLOW; 5'-4" DIA. X 15-20' H. DISCHARGE STACK; 8 HP TOTAL (AIR BLOWER, 5 HP, AND VENT BLOWER 3 HP), WITH MAKE-UP/PROPANE/NATURAL GAS LINE CONNECTED TO THE COMBUSTION CHAMBER.

AND THE ADDITION OF:

1. TWO CARBON ADSORPTION VESSELS CONNECTED IN PARALLEL, EACH VESSEL 9'-6" DIA. X 20' LONG, CONTAINING AT LEAST 36,700 POUNDS OF PELLETIZED ACTIVATED CARBON.
2. TWO VAPOR BLOWERS (ONE AS BACKUP), 2050 SCFM MAXIMUM FLOW RATE, EACH WITH A 20 HP MOTOR.

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3. FIVE DRY VACUUM PUMPS, EACH PUMP 1,500 ACFM @ 50 mm Hg, WITH A 100 HP MOTOR.
4. ONE GASOLINE ABSORBING TOWER 4'-6" DIA. X 23'-8.4"L.
5. ONE ABSORBENT SUPPLY PUMP, 420 GPM @ 40 PSI, WITH A 25 HP MOTOR.
6. ONE CONDENSATE RETURN PUMP, 507 GPM @ 40 PSI, WITH A 25 HP MOTOR.
7. ONE CONTINUOUS MONITORING SYSTEM (CMS) WITH A FLAME IONIZATION DETECTOR (FID) AND A PAPERLESS ELECTRONIC DATA RECORDER AND STORAGE 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. THIS EQUIPMENT SHALL BE OPERATING IN COMPLIANCE WITH A VALID AQMD PERMIT WHENEVER THE EQUIPMENT IT VENTS IS IN OPERATION.
[RULE 462, RULE 463, 40CFR 60 SUBPART XX]
4. THE FOLLOWING REQUIREMENTS SHALL APPLY TO VOC SERVICE FUGITIVE COMPONENTS ASSOCIATED WITH DEVICES COVERED BY THIS APPLICATION.
 - A. 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.
 - B. FOR ALL NEW FUGITIVE COMPONENTS IN VOC SERVICE, ANY LEAK GREATER THAN 500 PPM ABOVE BACKGROUND, MEASURED AS METHANE 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.
 - C. IF 98.0 PERCENT OR MORE OF THE NEW FLANGES AND (NON-BELLOWS-SEALED) VALVES ARE FOUND TO LEAK GASEOUS OR LIQUID VOLATILE ORGANIC COMPOUNDS AT A RATE LOWER THAN 500 PPM FOR TWO CONSECUTIVE MONTHS, THEN THE OPERATOR MAY REVERT TO A QUARTERLY INSPECTION PROGRAM WITH THE APPROVAL OF THE DISTRICT.
 - D. THE OPERATOR SHALL KEEP RECORDS OF THE MONTHLY INSPECTION (AND QUARTERLY INSPECTION, WHERE APPLICABLE), SUBSEQUENT REPAIR, AND REINSPECTION, IN A MANNER APPROVED BY THE DISTRICT.
[RULE 1303(b)(2) OFFESTS]

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5. WITHIN 30 DAYS AFTER CONSTRUCTION IS COMPLETED A WRITTEN REQUEST SHALL BE SUBMITTED TO CARB FOR CERTIFICATION OF THE VAPOR RECOVERY SYSTEM.
6. THE OPERATOR SHALL CONDUCT SOURCE TEST(S) AS FOLLOWS:
 - A. A TEST SHALL BE CONDUCTED TO DETERMINE THE VOLATILE ORGANIC COMPOUNDS (VOC) EMISSION RATE FOR THE TANKER TRUCK LOADING RACK.

THE TEST SHALL BE CONDUCTED TO DEMONSTRATE THAT TANKER TRUCK LOADING EMISSIONS DO NOT EXCEED 0.08 POUNDS OF VOC PER 1000 GALLONS LOADED.

THE TANKER TRUCK BULK LOADING RATE IN GALLONS PER HOUR DURING THE SOURCE TEST SHALL BE RECORDED.

THE BACK PRESSURE IN THE VAPOR RECOVERY SYSTEM SHALL BE MONITORED WHILE ALL LOADING RACKS ARE OPERATING SIMULTANEOUSLY.
 - B. A TEST SHALL BE CONDUCTED TO DEMONSTRATE THE VOLATILE ORGANIC COMPOUNDS (VOC) REMOVAL EFFICIENCY FOR FIXED ROOF STORAGE TANK OPERATING EMISSIONS.

THE TEST SHALL BE CONDUCTED TO DEMONSTRATE THAT THE VOC REMOVAL/RECOVERY EFFICIENCY FOR STORAGE TANK EMISSIONS IS AT LEAST 95 PERCENT.

THE VOC REMOVAL EFFICIENCY SHALL BE DETERMINED DURING ONGOING TANK(S) FILLING OPERATIONS OVER AT LEAST A FOUR-HOUR PERIOD.

THE TANK(S) LOADING RATE(S) SHALL BE RECORDED DURING THE TEST.
 - C. A TEST SHALL BE CONDUCTED TO DETERMINE THE VOC EMISSIONS FROM THE VAPOR RECOVERY SYSTEM. THE TEST SHALL BE CONDUCTED AT MAXIMUM ACHIEVABLE LOADING RATES.
 - D. THE TESTS SHALL BE CONDUCTED NO LATER THAN 180 DAYS AFTER INITIAL STARTUP.
 - E. THE OPERATOR SHALL SUBMIT THE SOURCE TEST(S) PROTOCOL(S) NO MORE THAN 90 DAYS AFTER COMPLETION OF CONSTRUCTION AND OBTAIN AQMD REVIEW AND APPROVAL OF SAID PROTOCOL(S) PRIOR TO CONDUCTING THE SOURCE TEST.
 - F. THE DISTRICT SHALL BE NOTIFIED OF THE DATE AND TIME OF THE TEST(S) AT LEAST 10 DAYS PRIOR TO THE TEST.
 - G. SOURCE TEST RESULTS SHALL BE SUBMITTED TO THE DISTRICT NO LATER THAN 60 DAYS AFTER THE SOURCE TEST IS CONDUCTED.
[RULE 462, RULE 463, 1303(a)(1), BACT, RULE 1303(b)(2) OFFSETS]

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7. THE OPERATOR SHALL INSTALL AND MAINTAIN A CONTINUOUS MONITORING DEVICE TO ACCURATELY INDICATE THE VOLATILE ORGANIC COMPOUND (VOC) CONCENTRATION AT THE OUTLET OF THE CARBON ADSORPTION VESSELS IN PPMV. THE EMISSIONS MONITORING DEVICE SHALL BE CALIBRATED DAILY.
[RULE 462, RULE 1303(a)(1) BACT]
8. VOLATILE ORGANIC COMPOUND (VOC) EMISSIONS MEASURED AT THE OUTLET OF THE VRU SHALL NOT EXCEED 105 POUNDS PER DAY.
[RULE 1303(b)(2) OFFSETS]
9. A TABLE OR GRAPH SHALL BE DEVELOPED TO CORRELATE THE HYDROCARBON MONITOR CONCENTRATION READINGS IN PERCENT (%) OR PARTS PER MILLION BY VOLUME (PPMV) WITH THE EMISSIONS RATE IN LBS PER 1000 GALLONS LOADED.
[RULE 462]
10. WHEN THE HYDROCARBON (HC) MONITORING SYSTEM MEASURES A VOLATILE ORGANIC COMPOUND (VOC) CONCENTRATION THAT EXCEEDS THE PPMV OR PERCENT (%) CONCENTRATION EQUIVALENT TO 0.08 POUNDS PER 1000 GALLONS LOADED (SEE CONDITION NO. 9), THE SYSTEM SHALL AUTOMATICALLY:
 - A. ALERT THE OPERATOR BOTH AUDIBLY AND VISUALLY TO PREVENT HYDROCARBON BREAKTHROUGH AND,
 - B. SHUT DOWN LOADING RACK OPERATIONS AND NOTIFY THE CONTROL ROOM TO SUSPEND TANK FILLING PERMISSIVES.
[RULE 462, RULE 1303(a)(1) BACT]
11. ALL RECORDS REQUIRED BY THIS PERMIT SHALL BE MAINTAINED FOR A FIVE YEAR PERIOD AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.
[RULE 204, RULE 462]
12. WITHIN 30 DAYS FROM INITIAL START-UP OF THE ADSORPTION/ABSORPTION VAPOR RECOVERY UNIT, ALL COMPONENTS OF THE AIR POLLUTION CONTROL SYSTEM CURRENTLY OPERATING UNDER PERMIT NO. F12395 (A/N 333960) AND NOT INCLUDED IN THE ADSORPTION/ABSORPTION VAPOR RECOVERY UNIT DESCRIPTION, SHALL BE TAKEN OUT OF SERVICE AND RENDERED INOPERABLE.
[RULE 204, RULE 1303(b)(2) OFFSETS]

Periodic Monitoring:

13. THE OPERATOR SHALL MONITOR LEAKS FROM THIS EQUIPMENT ACCORDING TO RULE 1173.
[RULE 463, 1173, 3004(a)(4)-PERIODIC MONITORING]
14. THE OPERATOR SHALL CONDUCT PERFORMANCE TESTING OF THE CONTROL EQUIPMENT EVERY FIVE (5) YEARS TO DETERMINE THE VOLATILE ORGANIC COMPOUNDS (VOC) EMISSION RATE IN POUNDS PER 1000 GALLONS LOADED (FOR TRUCK LOADING OPERATIONS), POUNDS OF VOC EMISSIONS PER DAY, AND THE VOC CONTROL EFFICIENCY FOR TANK FILLING OPERATIONS.
[RULE 463, 1303(a)(1)-BACT, 3004(a)(4)-PERIODIC MONITORING]

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Emissions and Requirements:

15. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

VOC:	0.08 LB/1000 GALLONS, RULE 462
VOC:	≥95% CONTROL EFFICIENCY, RULE 463
TOC/VOC:	35 MG/L, 40 CFR 60 SUBPART XX
HAP/TOC:	10 MG/L, 40 CFR 63 SUBPART R