



**FACILITY PERMIT TO OPERATE
BP WEST COAT PROD. LLC BP CARSON REFINERY**

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS
The operator shall comply with the terms and conditions set forth below:

Process 12: TREATING / STRIPPING			
SYSTEM 14: NORTH SOUR WATER TREATMENT SYSTEM			S13.2, S31.6
Equipment	ID No.	Emissions and Requirements	Conditions
VESSEL, FLASH, RPV-2257, SOUR WATER, 1000 BBL, LENGTH: 48 FT; DIAMETER: 12 FT A/N 434526 519284	D780	BENZENE: (10) [40CFR 61 Subpart FF_ #2, 12-4-2003]; VOC:500 PPMV (8) [40CFR 61 Subpart FF, 12-4-2003]	E336.5, E336.12, H23.12
KNOCK OUT POT, RPV 2624, FLASH VESSEL, HEIGHT: 12 FT; DIAMETER: 6 FT A/N 434526 519284	D781		E336.5, E336.12
TANK, PRESSURIZED SPHERE, NO. 710, SOUR WATER, WITH FUEL GAS BLANKET, COMMON TO NORTH & SOUTH SOUR WATER TREATMENT SYSTEMS, 40600 BBL, DIAMETER: 75 FT 9 IN A/N 434526 519284	D2728	BENZENE: (10) [40CFR 61 Subpart FF_ #2, 12-4-2003]; VOC:500 PPMV (8) [40CFR 61 Subpart FF, 12-4-2003]	E71.18, E336.8, E336.9, E336.10, E336.11, H23.12, K67.15
TANK, SURGE/FEED, FIXED ROOF, NO. 774, SOUR WATER, WITH FUEL GAS BLANKET, COMMON TO NORTH & SOUTH SOUR WATER TREATMENT SYSTEMS, 54000 BBL, DIAMETER: 90 FT; HEIGHT: 48 FT A/N 434526 519284	D1113	BENZENE: (10) [40CFR 61 Subpart FF_ #2, 12-4-2003]; VOC:500 PPMV (8) [40CFR 61 Subpart FF, 12-4-2003]	E71.17, E336.2, E336.7, H23.12, K67.15
TANK, SURGE/FEED, FIXED ROOF, NO. 775, SOUR WATER, WITH FUEL GAS BLANKET, COMMON TO NORTH & SOUTH SOUR WATER TREATMENT SYSTEMS, 54000 BBL, DIAMETER: 90 FT; HEIGHT: 48 FT A/N 434526 519284	D1114	BENZENE: (10) [40CFR 61 Subpart FF_ #2, 12-4-2003]; VOC:500 PPMV (8) [40CFR 61 Subpart FF, 12-4-2003]	E336.2, H23.12, K67.15



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COLUMN, STRIPPER A, RPV 4101, SOUR WATER, COMMON TO NORTH & SOUTH SOUR WATER TREATMENT SYSTEMS, HEIGHT: 74 FT; DIAMETER: 8 FT A/N -434526 519284	D838		E336.8
ACCUMULATOR, STRIPPER A, OVERHEAD, RPV 4107 6809, COMMON TO NORTH & SOUTH SOUR WATER TREATMENT SYSTEMS, LENGTH: 10 FT; DIAMETER: 4 FT A/N -434526 519284	D840		
VESSEL, STRIPPER A, OVERHEAD SEPARATOR, RPV 4104, COMMON TO NORTH & SOUTH SOUR WATER TREATMENT SYSTEMS, HEIGHT: 10 FT; DIAMETER: 4 FT A/N -434526 519284	D839		E336.6
COLUMN, STRIPPER B, RPV 4100, SOUR WATER, COMMON TO NORTH & SOUTH SOUR WATER TREATMENT SYSTEMS, HEIGHT: 74 FT; DIAMETER: 8 FT A/N -434526 519284	D841		E336.8
ACCUMULATOR, STRIPPER B, OVERHEAD, RPV 4108 6807, COMMON TO NORTH & SOUTH SOUR WATER TREATMENT SYSTEMS, LENGTH: 8 FT 9 IN; DIAMETER: 4 FT A/N -434526 519284	D843		
VESSEL, STRIPPER B, OVERHEAD SEPARATOR, RPV 4105, COMMON TO NORTH & SOUTH SOUR WATER TREATMENT SYSTEMS, HEIGHT: 10 FT; DIAMETER: 4 FT A/N -434526 519284	D842		E336.6
FUGITIVE EMISSIONS, MISCELLANEOUS A/N -434526 519284	D2514	HAP: (10) [40CFR 63 Subpart CC, #5A, 6- 23-2003]	H23.3



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Conditions:

S13.2, S31.6, ~~E71.17~~, E71.18, E336.2, E336.5, E336.6, ~~E336.7~~, E336.8, ~~E336.9~~, ~~E336.10~~, ~~E336.11~~, E336.12, H23.3, H23.12, K67.15.

S13.2 All devices under this system are subject to the applicable requirements of the following rules and regulations:

CONTAMINANT	RULE	RULE/SUBPART
VOC	DISTRICT RULE	1123
[RULE 1123, 12-7-1990]		

S31.6 THE FOLLOWING BACT REQUIREMENTS SHALL APPLY TO VOC SERVICE FUGITIVE COMPONENTS ASSOCIATED WITH THE DEVICES THAT ARE COVERED BY APPLICATION NUMBER(S) 434526,434527,434528,436040, 436041 AND 454560:

The operator shall provide to the District, no later than 60 days after initial startup, a recalculation of the fugitive emissions based on actual components installed and removed from service. The valves and flanges shall be categorized by size and service. The operator shall submit a listing of all new non-bellows seal valves which shall be categorized by tag no., size, type, operating temperature, operating pressure, body material, application, and reasons why bellows seal valves were not used.

All new valves in VOC service, except those specifically exempted by Rule 1173 and those in heavy liquid service as defined in Rule 1173, shall be bellows seal valves, except as approved by the District, in the following applications: heavy liquid service, control valve, instrument piping/tubing, applications requiring torsional valve stem motion, applications where valve failure could pose safety hazard (e.g., drain valves with valve stems in horizontal position), retrofits/special applications with space limitations, and valves not commercially available.

All new valves and major components in VOC service as defined by Rule 1173, except those specifically exempted by Rule 1173 and those in heavy liquid service as defined in Rule 1173, shall be distinctly identified from other components through their tag numbers (e.g., numbers ending in the letter "N"), and shall be noted in the records.

All new components in VOC service as defined in Rule 1173, except valves and flanges, shall be inspected quarterly using EPA reference Method 21. All new valves and flanges in VOC service, except those specifically exempted by Rule 1173, shall be inspected monthly using EPA Method 21.

If 98.0 percent or greater of the new (non-bellows seal) valves and the new flange population inspected is found to leak gaseous or liquid volatile organic compounds at a rate less than 500



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ppmv for two consecutive months, then the operator may change to a quarterly inspection program with the approval of the District.

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 inspected is found to leak gaseous or liquid volatile organic compounds at a rate less than 500 ppmv.

All new components in VOC service with a leak greater than 500 ppmv but less than 1,000 ppmv, as methane, measured above background 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, which are not exempted by Rule 1173.

The operator shall keep records of the monthly inspection (quarterly where applicable), subsequent repair, and reinspection, in a manner approved by the District. Records shall be kept and maintained for at least five years, and shall be made available to the Executive Officer or his authorized representative upon request.

The operator shall replace 4 additional existing valves in VOC service with bellow sealed valves to offset the emission increase from the modification to the above referenced applications. The operator shall submit to the District within 90 days of startup, copies of the as-built piping and instrumentation diagram identifying the replacement valves and copies of requisition data sheet for the new bellow sealed valves. The additional valves to be replaced shall include the following valves with Rule 1173 tag numbers: NESHAP 1351, 1352, 1354, and 1355.

All open-ended valves shall be equipped with cap, blind flange, plug, or a second valve.

All pressure relief valves shall be connected to closed vent system or equipped with rupture disc.

All sampling connections shall be closed-purge, closed-loop, or closed-vent system.

All components are subject to 40CFR60, Subpart GGG.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(b)(2)-OFFSET, 5-10-1996]

E71.17 THE OPERATOR SHALL ONLY USE THIS EQUIPMENT TO RECEIVE SOUR WATER FROM PRESSURIZED SPHERE NO. 710 (DEVICE ID D2728), UNLESS PRESSURIZED THE SPHERE (D2728) IS OUT OF SERVICE DUE TO BREAKDOWN, MAINTENANCE OR TURNAROUND. THIS CONDITION SHALL BECOME EFFECTIVE 18 MONTHS AFTER THE DATE THAT THE DISTRICT ISSUES ALL NECESSARY PERMITS TO CONSTRUCT FOR PRESSURIZED SPHERE (D2728).

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(b)(2)-OFFSET, 5-10-1996]



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The operator shall comply with the terms and conditions set forth below:

E71.18 THE OPERATOR SHALL NOT SEND SOUR WATER FROM THIS EQUIPMENT TO TANKS 774 AND OR 775 WHEN THE PRESSURE INSIDE THE SPHERE IS GREATER THAN 2 PSIG.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(b)(2)-OFFSET, 5-10-1996]

E336.2 THE OPERATOR SHALL VENT THE VENT GASES FROM THIS EQUIPMENT AS FOLLOWS:

All vent gases under normal operating conditions shall be directed to a vapor recovery system.

This equipment shall not be operated unless the vapor recovery system (consisting of three compressors operated independently or concurrently at any given time) is in full use and has a valid permit to receive vent gases from this equipment.

[RULE 1303(a)(1)-BACT, 5-10-1996]

E336.5 THE OPERATOR SHALL VENT THE VENT GASES FROM THIS EQUIPMENT AS FOLLOWS:

All emergency vent gases shall be directed to vapor recovery system (process 21 System 4) or a flare system.

This equipment shall not be operated unless the vapor recovery system (consisting of three compressors operated independently or concurrently at any given time) or flare system is in full use and has a valid permit to receive vent gases from this equipment.

[RULE 1303(a)(1)-BACT, 5-10-1996]

E336.6 THE OPERATOR SHALL VENT THE VENT GASES FROM THIS EQUIPMENT AS FOLLOWS:

All acid gases under normal operating conditions shall be directed to the sulfur recovery units.

[RULE 1303(a)(1)-BACT, 5-10-1996]

~~**E336.7** THE OPERATOR SHALL VENT THE VENT GASES FROM THIS EQUIPMENT AS FOLLOWS:~~

~~If the operator has not completed construction and commenced full operation of the new pressurized sphere (reference permit application No.434526) to replace existing tank D1112 (Tank 710) within 18 months after the date that the District issues all necessary permits to construct for the sphere, then the operator shall control vent gases from this device according to the following schedule:~~

~~No later than 20 months after the issuance of the permit(s) to construct for the Tank 710 sphere, the operator shall submit a complete application or applications for permit(s) to construct for all~~



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The operator shall comply with the terms and conditions set forth below:

~~modifications necessary to ensure that all of the gases from any valve that, if opened, would release to the atmosphere will be directed to air pollution control equipment~~

~~Effective 18 months after the District takes action to issue or deny the permit(s) to construct for connection to air pollution control equipment, all gases from any valve that, if opened, would release to the atmosphere shall be directed to air pollution control equipment. This device shall not be operated thereafter unless this air pollution control equipment is in full use and has a valid permit or permits to receive vent gases from this device~~

~~This condition is effective until the proposed replacement of existing tank D1112 (Tank 710) with a new pressurized sphere (new Tank 710) as specified in permit application No.434526 is in full operation. This condition shall be void upon commencement of full operation of new Tank 710 and thereafter shall be unenforceable~~

~~[RULE 402, 5-7-1976]~~

~~E336.8 THE OPERATOR SHALL VENT THE VENT GASES FROM THIS EQUIPMENT AS FOLLOWS:~~

~~All emergency vent gases shall be directed to the South Area Flare System (process 21, system 1)~~

~~This equipment shall not be operated unless the flare system is in full use and has a valid permit to receive vent gases from this equipment.~~

~~[RULE 1303(b)(2)-OFFSET, 5-10-1996]~~

~~E336.9 THE OPERATOR SHALL VENT THE VENT GASES FROM THIS EQUIPMENT AS FOLLOWS:~~

~~All vent gases under normal operating conditions (when the pressure inside the tank is equal to or less than 2 psig) shall be directed to Vapor Recovery System (Process 21 System 4).~~

~~This equipment shall not be operated unless the vapor recovery system (consisting of three compressors operated independently or concurrently at any given time) is in full use and has a valid permit to receive vent gases from this equipment.~~

~~[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(b)(2)-OFFSET, 5-10-1996]~~

~~E336.10 THE OPERATOR SHALL VENT THE VENT GASES FROM THIS EQUIPMENT AS FOLLOWS:~~

~~All vent gases under upset operating conditions (when the pressure inside the tank exceeds 2 psig and is less than 45 psig) shall be directed to the Blowdown Gas Compression System (Process 2 System 6). All vent gases under normal condition shall be directed to either the Refinery Vapor~~



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Recovery System (Process 21, System 4) or to the Blowdown Gas Compression System (Process 2, System 6) but only to one system at a time. The operator shall close the block valve on the vent stream line to the system not receiving vent gases from the tank. The operator shall also ensure that backflow does not occur when the tank vents to the Blowdown Gas Compression System.

This equipment shall not be operated unless the Blowdown Gas Compression System (consisting of three compressors operated independently or concurrently at any given time) is in full use and has a valid permit to receive vent gases from this equipment. This equipment shall not be operated unless the system receiving vent gases from the tank is in full use and has valid permit to receive the vent gases

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(b)(2)-OFFSET, 5-10-1996]

~~E336.11 THE OPERATOR SHALL VENT THE VENT GASES FROM THIS EQUIPMENT AS FOLLOWS:~~

~~All emergency vent gases (when the pressure inside the tank is at or above 45 psig) shall be directed to a flare system (Process 21 System 1).~~

~~This equipment shall not be operated unless the flare system is in full use and has a valid permit to receive vent gases from this equipment.~~

~~RULE 1303(b)(2)-OFFSET, 5-10-1996]~~

~~E336.12 THE OPERATOR SHALL VENT THE VENT GASES FROM THIS EQUIPMENT AS FOLLOWS:~~

~~All vent gases under normal operating conditions shall be directed to Vapor Recovery System (Process 21 System 4) or Blowdown Gas Compression system (Process 2 System 6).~~

~~This equipment shall not be operated unless the vapor recovery system or blowdown gas compression system (each consisting of three compressors operated independently or concurrently at any given time) for which vent gases is being directed to is in full use and has a valid permit to receive vent gases from this equipment.~~

~~[RULE 1303(a)(1)-BACT, 5-10-1996]~~

H23.3 This equipment is subject to the applicable requirements of the following rules and regulations:



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CONTAMINANT	RULE	RULE/SUBPART
VOC	DISTRICT RULE	1173
VOC	40CFR60, SUBPART	GGG

[RULE 1173, 5-13-1994, RULE 1173, 2-6-2009, 40CFR 60 Subpart GGG, 6-2-2008]

H23.12 THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES OR REGULATIONS:

CONTAMINANT	RULE	RULE/SUBPART
BENZENE	40CFR61, SUBPART	FF

[40 CFR 61 Subpart FF, 12-4-2003]

K67.15 THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE DISTRICT, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):

- Throughput, in barrels per hour.
- Tank pressure in psig

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(b)(2)-OFFSET, 5-10-1996]

