



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING & COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

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APPL. NO.

551269 & 551270

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08/5/2013

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PERMIT TO CONSTRUCT

COMPANY NAME

TESORO REFINING AND MARKETING CO
P.O. BOX 817,
WILMINGTON, CA 90748-0817

EQUIPMENT LOCATION

2101 E. PACIFIC COAST HIGHWAY
WILMINGTON, CA 90744
Facility ID#: 800436

Facility Type: NOx & SOx RECLAIM (Cycle 1), Title V

Note: A Title V application has been submitted, but the permit has not been issued.

EQUIPMENT DESCRIPTION

Additions are shown as underlined and deletions are shown as ~~strikeouts~~.

Section H: Permit to Construct and Temporary Permit to Operate

Equipment	ID No.	Connected To	RECLAIM Source Type / Monitoring Unit	Emissions and Requirements	Conditions
Process 9: ALKYLATION					P13.1
System 1: ALKYLATION UNIT					S13.4, S15.2, S15.5, S31.1, <u>S31.4</u>
FILTER, SALT, V-579, PROPANE, LENGTH: 25 FT 4 IN; DIAMETER: 5 FT A/N: 470290 <u>551269</u>	D390				
VESSEL, SALT DRIER, V-582, LENGTH: 15 FT 8 IN; DIAMETER: 4 FT A/N: 470290 <u>551269</u>	D391				
VESSEL, V-1407, BUTYLENE COALESCER, LENGTH: 13 FT 2 IN; DIAMETER: 3 FT 6 IN A/N: 470290 <u>551269</u>	D392				
VESSEL, COALESCER, V-1408, OLEFIN, LENGTH: 10 FT 5 IN; DIAMETER: 1 FT 8 IN A/N: 470290 <u>551269</u>	D393				
SETTLING TANK, 1ST STAGE, V-1409, ACID, LENGTH: 50 FT ; DIAMETER: 12 FT 6 IN A/N: 470290 <u>551269</u>	D394				
SETTLING TANK, 2ND STAGE, V-1410, ACID, LENGTH: 50 FT ; DIAMETER: 12 FT 6 IN A/N: 470290 <u>551269</u>	D395				



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TANK, FLASH, V-1411, REACTOR EFFLUENT, LENGTH: 30 FT 6 IN; DIAMETER: 8 FT 6 IN A/N: 470290 551269	D396				
REFRIGERANT, LENGTH: 24 FT ; DIAMETER: 6 FT 6 IN A/N: 470290 551269	D397				
ACCUMULATOR, V-1416, REFRIGERANT, LENGTH: 18 FT ; DIAMETER: 5 FT A/N: 470290 551269	D399				
ACCUMULATOR, V-1953, DEPROPANIZER FEED, LENGTH: 20 FT ; DIAMETER: 4 FT 6 IN A/N: 470290 551269	D400				
DRUM, BLOWDOWN, V-1418, ACID, LENGTH: 27 FT ; DIAMETER: 10 FT A/N: 470290 551269	D401				
SCRUBBER, CAUSTIC, V-1419, ACID VAPOR, LENGTH: 16 FT ; DIAMETER: 8 FT A/N: 470290 551269	D402				
COLUMN, DEETHANIZER, V-1420, LENGTH: 81 FT 6 IN; DIAMETER: 5 FT A/N: 470290 551269	D403				
ACCUMULATOR, V-1421, DEETHANIZER OVERHEAD, LENGTH: 80 FT ; DIAMETER: 5 FT A/N: 470290 551269	D404				
POT, V-1422, DEETHANIZER REBOILER CONDENSATE, LENGTH: 3 FT ; DIAMETER: 1 FT 6 IN A/N: 470290 551269	D405				
SETTLING TANK, V-1423, DEPROPANIZER CAUSTIC WASH, LENGTH: 30 FT ; DIAMETER: 6 FT 6 A/N: 470290 551269	D406				
SETTLING TANK, V-1424, DEPROPANIZER WATER WASH, WITH NEW ELEMENT LENGTH: 26 FT ; DIAMETER: 6 FT A/N: 470290 551269	D407				
VESSEL, PRECIPITATOR, V-1425, DEPROPANIZER FEED, HEIGHT: 12 FT ; DIAMETER: 6 FT A/N: 470290 551269	D408				
COLUMN, DEPROPANIZER, V-1426, HEIGHT: 118 FT 6 IN; DIAMETER: 7 FT A/N: 470290 551269	D409				
POT, V-1427, DEPROPANIZER REBOILER CONDENSATE, LENGTH: 3 FT ; DIAMETER: 1 FT 6 IN A/N: 470290 551269	D410				



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ACCUMULATOR, V-1428, DEPROPANIZER OVERHEAD, LENGTH: 15 FT ; DIAMETER: 6 FT A/N: 470290 551269	D411				
<u>VESSEL, COALESCER, V-2409, PROPANE FREE WATER, WITH INTERNAL COALESCER ELEMENT LENGTH: 8 FT ; DIAMETER: 1 FT A/N: 551269</u>	<u>DXXX1</u>				
VESSEL, DEGASER, V-1429, ALKALINE WATER, LENGTH: 8 FT ; DIAMETER: 4 FT A/N: 470290 551269	D949			HAP: (10) [40CFR 63 Subpart CC, #1, 6-23-2003]	
VESSEL, DEGASER, V-1430, SPENT CAUSTIC, LENGTH: 8 FT ; DIAMETER: 4 FT A/N: 470290 551269	D950				
DRUM, FLASH, V-1432, HP CONDENSATE, LENGTH: 5 FT ; DIAMETER: 3 FT A/N: 470290 551269	D413				
DRUM, FLASH, V-1433, LP CONDENSATE, LENGTH: 37 FT 4 IN; DIAMETER: 11 FT A/N: 470290 551269	D414				
POT, V-1434, ALKY DIB. CAUSTIC HEATER CONDENSATE, LENGTH: 3 FT ; DIAMETER: 1 FT 6 IN A/N: 470290 551269	D415				
TANK, WASH, V-1435, ALKY DIB. CAUSTIC SETTLER, LENGTH: 43 FT ; DIAMETER: 9 FT A/N: 470290 551269	D416				
TANK, WASH, V-1436, ALKY DIB. WATER SETTLER, LENGTH: 40 FT ; DIAMETER: 8 FT A/N: 470290 551269	D417				
VESSEL, PRECIPITATOR, V-1437, ALKY DIB. FEED, LENGTH: 10 FT ; DIAMETER: 10 FT A/N: 470290 551269	D418				
DRUM, V-1438, ALKY DIB. TEA, LENGTH: 9 FT ; DIAMETER: 3 FT A/N: 470290 551269	D419				
COLUMN, ALKY DIB, V-1439, HEIGHT: 165 FT ; DIAMETER: 11 FT A/N: 470290 551269	D420				
POT, V-1440A/B/C/D, ALKY DIB. REBOILER CONDENSATE, 4 TOTAL, LENGTH: 3 FT ; DIAMETER: 1 FT 6 IN A/N: 470290 551269	D421				
ACCUMULATOR, V-1441, ALKY DIB. OVERHEAD, LENGTH: 42 FT ; DIAMETER: 10 FT 6 IN A/N: 470290 551269	D422				



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COLUMN, ALKY DEBUTANIZER, V-1442, HEIGHT: 94 FT 9 IN; DIAMETER: 5 FT A/N: 470290 551269	D423				
POT, V-1443, ALKY DEBUTANIZER REBOILER CONDENSATE, LENGTH: 3 FT ; DIAMETER: 1 FT 6 IN A/N: 470290 551269	D424				
ACCUMULATOR, V-1444, ALKY DEBUTANIZER OVERHEAD, LENGTH: 15 FT ; DIAMETER: 4 FT 6 IN A/N: 470290 551269	D425				
ACCUMULATOR, V-1449, V-1450 AND V-2103, S.O. AT E-1277, E1276 AND E-1721, 3 TOTAL, HEIGHT: 2 FT 3 IN; DIAMETER: 1 FT 7 IN A/N: 470290 551269	D431				
KNOCK OUT POT, FLARE, V-1694, LENGTH: 23 FT ; DIAMETER: 8 FT A/N: 470290 551269	D432				
DRUM, FLASH, V-1583, MIXED BUTANE TREATER, CAUSTIC A/N: 470290 551269	D953				
VESSEL, V-1156/7/8/9, K.O. POTS 12001/2/3/4, 4 TOTAL A/N: 470290 551269	D954				
VESSEL, PRECIPITATOR, V-1412, ACID A/N: 470290 551269	D960				
VESSEL, V-1413, SPENT ACID A/N: 470290 551269	D961				
SETTLING TANK, 3RD STAGE, V-2090, ACID, LENGTH: 50 FT ; DIAMETER: 12 FT A/N: 470290 551269	D1080				
VESSEL, CONTACTOR, E-1721, 9800 SQ.FT., LENGTH: 92 FT ; DIAMETER: 63 FT A/N: 470290 551269	D1081				
COMPRESSOR, C-155, REFRIGERANT, CENTRIFUGAL, BARREL TYPE, 4000 H.P. A/N: 470290 551269	D1082				H23.4
TANK, SETTLING, V-2241, ACID, LENGTH: 50 FT ; DIAMETER: 12 FT 6 IN A/N: 470290 551269	D1504				
VESSEL, V-2242, ISOBUTANE COALESCER, LENGTH: 7 FT 6 IN; DIAMETER: 5 FT A/N: 470290 551269	D1505				



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TANK, WASH, V-2250, ACID, LENGTH: 20 FT ; DIAMETER: 12 FT A/N: 470290 551269	D1506				
VESSEL, CONTACTORS NOS. 1 & 2, E-1276 & 1277 A/N: 470290 551269	D959				
VESSEL, CONTACTOR NO. 4, E-1827 A/N: 470290 551269	D1507				
COMPRESSOR, C-164, PROPANE, 1455-HP A/N: 470290 551269	D1509				
FUGITIVE EMISSIONS MISCELLANEOUS A/N: 470290 551269	D1392			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23. 16

- * (1) Denotes RECLAIM emission factor
 - (2) Denotes RECLAIM emission rate
 - (3) Denotes RECLAIM concentration limit
 - (4) Denotes BACT emission limit
 - (5)(5A)(5B) Denotes command and control emission limit
 - (6) Denotes air toxic control rule limit
 - (7) Denotes NSR applicability limit
 - (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)
 - (9) See App B for Emission Limits
 - (10) See Section J for NESHAP/MACT requirements
- ** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

Equipment	ID No.	Connected To	RECLAIM Source Type / Monitoring Unit	Emissions and Requirements	Conditions
PROCESS 21: AIR POLLUTION CONTROL					
System 1: REFINERY FLARE					S13.4, S18.2
FLARE, ELEVATED WITH STEAM INJECTION, Q-910, NO. 2, JOHN ZINK, MODEL STF-S-30, DIAMETER: 2 FT 6 IN; HEIGHT: 250 FEET A/N: 539336 551270	C747				D12.4, D323.2, E193.1, H23.38,
FLARE, ELEVATED WITH STEAM INJECTION, Q-913, NO. 1, JOHN ZINK, MODEL STF-S-30, DIAMETER: 2 FT 6 IN; HEIGHT: 250 FEET A/N: 539336 551270	C748				D12.4, D323.2, E193.1, H23.38,
KNOCK OUT POT, V-847, FLARE NO.2, WITH INTERNAL LIQUID SEAL, LENGTH 24 FT; DIAMETER 12 FT A/N: 539336 551270	D752				



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KNOCK OUT POT, V-848, FLARE NO.1, WITH INTERNAL LIQUID SEAL, LENGTH 24 FT; DIAMETER 12 FT A/N: A/N: 539336-551270	D753				
KNOCK OUT POT, V-616, CRU-HTU NO. 1, LENGTH: 16 FT; DIAMETER: 8 FT A/N: A/N: 539336-551270	D750				
KNOCK OUT POT, V-630, CRU-HTU NO. 2, LENGTH: 19 FT; DIAMETER: 6 FT A/N: A/N: 539336-551270	D751				
KNOCK OUT POT, V-873, CRU NO. 3, LENGTH: 18 FT; DIAMETER: 9 FT A/N: A/N: 539336-551270	D754				
KNOCK OUT POT, V-934, DCU, LENGTH: 25 FT; DIAMETER: 12 FT A/N: A/N: 539336-551270	D755				
KNOCK OUT POT, V-951, HGU NO. 1, LENGTH: 40 FT; DIAMETER: 10 FT A/N: A/N: 539336-551270	D756				
KNOCK OUT POT, V-1018, HCU, LENGTH: 29 FT; DIAMETER: 14 FT 6 IN A/N: A/N: 539336-551270	D757				
KNOCK OUT POT, V-1431, ALKYLATION UNIT A/N: A/N: 539336-551270	D758				
KNOCK OUT POT, V-1472, HTU NO. 3, LENGTH: 23 FT 8 IN; DIAMETER: 9 FT 3 IN A/N: A/N: 539336-551270	D759				
KNOCK OUT POT, V-1764, HTU-4, HEIGHT: 36 FT; DIAMETER: 13 FT A/N: A/N: 539336-551270	D172				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: A/N: 539336-551270	D1419			HAP: (10) [RULE 63SUBPART CC_5A, 05/25/01]	H23.5,

COMPLIANCE RECORD REVIEW

A two year printout of the facility's compliance history is shown in Attachment 1. All NOV's issued to this facility are listed as either in compliance or are closed. There are no open NOV's currently.

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BACKGROUND

Tesoro submitted the following applications for the modification of the Alkylation unit and the flare. Tesoro's Los Angeles Refinery Sulfuric acid Alkylation unit was built in the 1988. The current maximum throughput capacity is 12,000 bbls/day.

See Table 1 below regarding the previous modification and the permit history the Alky Unit.

Table 1 Alkylation Unit Permit History

Permit To Construct		Permit To Operate		Description of the modification
No.	Issue date	No.	Issue date	
100556	—	M63513	5/25/1988	Construct a new Sulfuric acid Alkylation unit
293990	12/13/1994	—	—	To increase the production rate from 7,200BPD to 8,500BPD in order to meet the new increased rate of the butylenes feed and will be introduced and combined with the existing propylene feed. It was essential to meet the RFG Phase 2 standards.
347560	—	—	2/20/2002	Change of Ownership from Texaco refining & marketing to Equilon Enterprises LLC
376616	1/18/2002	F97825	7/2/2008	To increase alkylate production from 8,500 BPD to 12,000 BPD. . It was essential in meeting the new RFG Phase 3 standards. The modification consisted of adding a new contactor and settler, refrigeration unit, heat exchangers and effluent treating vessels
470290	—	G2062	11/28/2007	Change of Ownership from Equilon to Tesoro Refining & Marketing Co

PROCESS DESCRIPTION

Olefin feed is combined with isobutane in the presence of sulfuric acid to form alkylate, a high octane gasoline component. The reaction is carried out in contactors where the hydrocarbons and acid are mixed by electrically driven impellers. The acid and the hydrocarbons then are separated in acid settlers. The acid is recycled to the contactors while the hydrocarbon is processed further to separate butanes from the alkylate product. The alkylate is washed to remove trace quantities of acid and is then fractionated to remove normal butane and isobutane that is recycled to the process. The butane stream (this stream also contains some propane) is compressed, cooled and fractionated with the recovered isobutane being recycle to the contactors.

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In addition to the alkylate stream, the products leaving the Alkylation unit include the propane and normal butane that enter the saturated and unsaturated feed streams as well as a small quantity of tar produced by polymerization reactions. The product stream leaving an alkylation unit are: 1. LPG grade propane liquid 2. Normal butane liquid 3. C5+Alkylate 4. Tar

Background of the proposed modifications

A/N 551269: Alkylation Unit

The following table show the specific changes proposed for the Alkylation unit:

Device ID	Description	Dimensions/Capacity	Modification
DXXX	New Propane free water Coalescer with element.	Length 8'-0"x Diameter 1'-0"	New Coalescer
D407	V-1424 Depropanizer water wash settler with new Element	Length 26'-0"x Diameter 6'-0"	Modification to internals; new Internal coalescing element
D309	V-579, Propane Salt Dryer	Length 25'-4"x Diameter 5'-0"	Modifications to internals: new salt and new distributors
Non-permitted	E-1296A, Depropanizer Overhead cooler with increased capacity		Replacing the Depropanizer overhead cooler with increased capacity

The modification to internals of V579(D309), V-1424(D407) and the replacement of E1296A cooler did not increase the fugitive components. However, the addition of the new propane coalescer V-2409 with PRV to the flare system will result in the addition of new fugitive emission components.

The new coalesce vessel will be located downstream of the tower of the alkylation unit, and upstream of the salt dryer, where removal of water from the LPG occurs prior to sales at the truck loading rack.

The new coalescer vessel will reduce free water in the LPG stream to the salt dryer(V-579) to less than 15 ppm and extend the life of the dryer. This coalescer vessel will be fitted with internal liquid/liquid coalescer elements that separate the free water from the LPG and will be a carbon steel pressure vessel rated at 350 psig at 650 F. The new vessel will be bypassed to allow for element replacement when spent.

There will be an official procedure written for the coalescer element change out as part of the Pre Startup Safety Review (PSSR). The following will be included in the basic procedure to change out the coalescing element:

- 1) Bypass coalescer
- 2) Block in coalescer
- 3) Depressure coalescer to flare system where the vapors are collected for use as fuel.
Depressure until the pressure in the vessel is below 5 psi
- 4) Water Wash/Steam out coalescer -

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- 5) Issue permit (procedure internal to Tesoro) for maintenance to open vessel
- 6) Pull out existing coalescer element
- 7) Install new coalescer element
- 8) Pull blinds

The attached P&ID submitted by Tesoro, shows the coalescer vessel, V-2409, that will be modified to include a new element. The procedure to change out the element will not result in emissions.

To commence the change out of the element, the vessel is bypassed and blocked in. Then it is depressured to the flare gas recovery system. The flare line is highlighted on the attached P&ID. There is a bypass (drawn in on the P&ID) that is included in the modification that shows the connection to the flare gas recovery system. Then the procedure calls for the vessel to be steamed out to the flare gas recovery system for 2 hours. Recall that this vessel handles very clean propane so the steam out does not include heavy hydrocarbons and the propane would be stripped out in 30 minutes, however, for precautions, the vessel steamout would last for 2 hours – The water that condenses from the steam out is routed to the sour water system. This is a closed system. The water drain line to the sour water system is highlighted on the attached P&ID. A 1” vent nozzle ‘normally closed’ is added at the top of the vessel. After the 2 hour of steamout and the washwater is drained, an LEL probe will be lowered through the vent nozzle into the vessel, that is filled with steam, will confirm that there is no LEL(0%) remaining in the vessel prior to the issuance of a permit to open the vessel. When the vessel is open, the existing coalescer element is removed and a new element will be installed. The vessel will be closed, the blinds pulled, and the vessel will be put back in service. There are no emissions associated with the change out of the coalescer element.

A/N 551270: Flare

The existing flare system will be modified to connect the relief valve of the new coalescer vessel V-2409 to the flare header.

The existing Refinery system is part of System 4 Process 21 in Section D Devices D.

Tesoro Refinery has two flares that serve all process units. They are steam assisted flares having a combined maximum capacity of 1,040,000 lb/hr. There is a water seal before the flare which maintains a positive pressure on the flare recovery compressors. This compressor gathers gas from the refinery flare header and compresses it and the gas get treated and is introduced to the fuel gas system. The flare recovery compressor has a capacity of 60,000 scfh. In the case of an upset, the maximum vent gas from new coalescer vessel V-2409 (in case of fire) to the flare header would be 16,323 lbs/hr (388.64 scfh). The flare gas compressor capacity is 60,000scfh, and is easily expected to handle the additional capacity from coalescer vessel V-2409.



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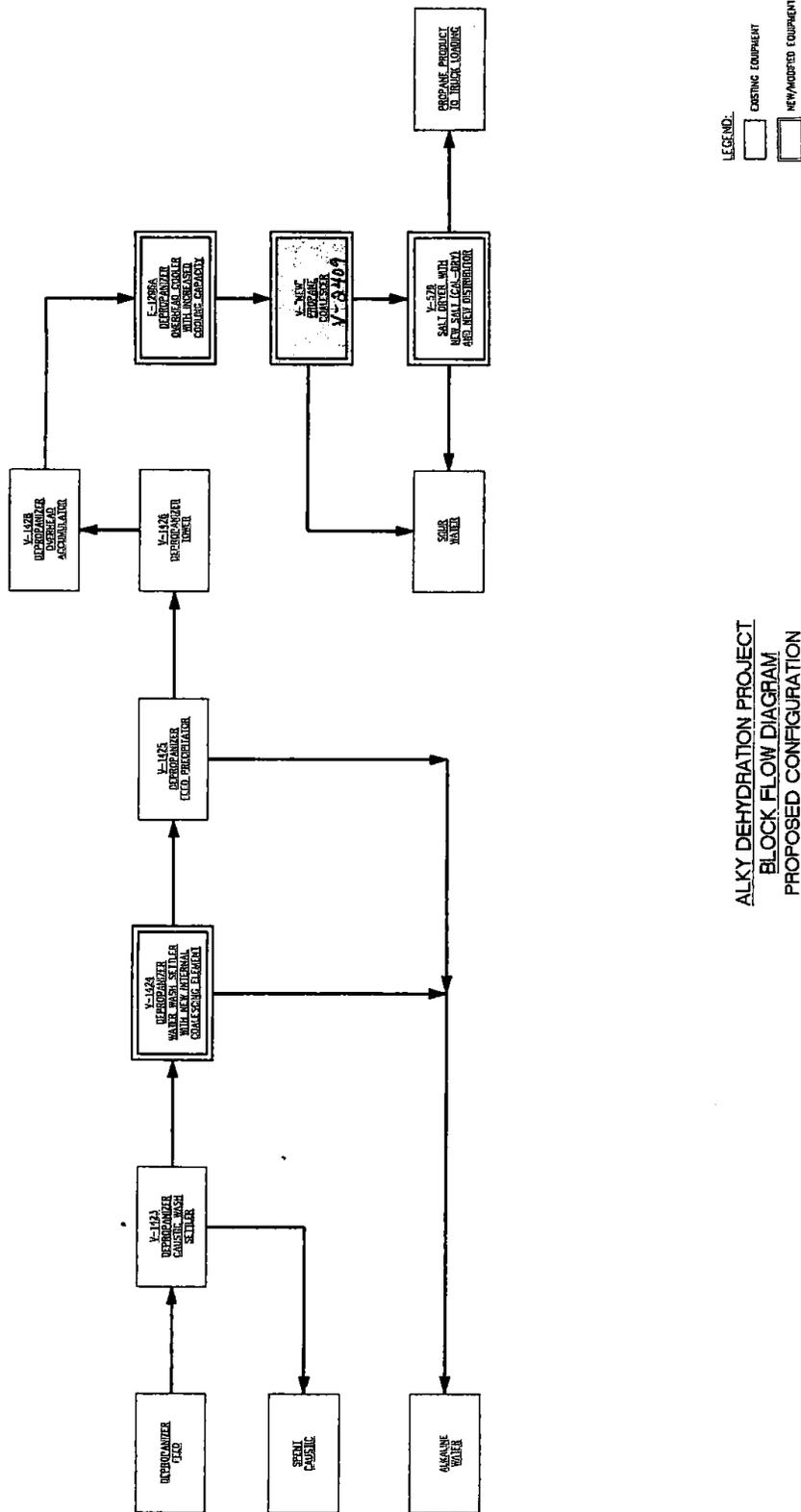
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ALKYL DEHYDRATION PROJECT
BLOCK FLOW DIAGRAM
PROPOSED CONFIGURATION

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FEE ANALYSIS

Table 2 – Summary of Permit Processing Fees

	Equipment Description	BCAT/CCAT	Fee Schedule	Fee Type	Fee	XPP Fee	Total Fee
551269	Alkylation Unit	000590	H	Modification	\$5,458.60	\$2,729.30	\$8,187.90
551270	Flare	92	F	Modification	\$16,311.78	\$5,437.26	\$16,311.78
551268	Permit Amendment	555009		Title V Significant Amendment	\$1,789.12		\$1,789.12
Total Permit Processing							\$26,288.80

EMISSIONS CALCULATIONS

The modification to internals of V579(D309), V-1424(D407) and the replacement of E1296 A cooler did not increase the fugitive components. However, the addition of the new propane coalescer V-2409 with PRV to the flare system will result in the addition of new fugitive emission components. The project will result in the addition of new fugitive emission components, therefore the emission calculations relate only to reactive organic gases (ROG). All new valves that will be added as a result of this project will be BACT, in this case, 12 new bellow sealed valves will be added. In addition, there will be 23 new flanges, 1 new PRV, 1 new level gauge, and 2 new level transmitters. The addition of these new fugitive emission components results in an increased 188 lbs. /year or 0.3945 lbs. /day. The new coalescer vessel V-2409 will be equipped with 1 new PRV that will relieve to the flare. There will be no new NO_x, SO_x, CO or PM-10 emissions from this project, as any relief vent gas will be recovered by the existing refinery flare system. See Table 3 for the emissions calculations. P&IDs for the process and proposed changes were submitted with the application and are included in the application folder.



Table 3- Fugitive Emissions Calculations

Source Unit	Service	No of Existing Components	No. of New Components to be Installed	Correlation Equation Factor, 500 ppm Screening Value	Pre-Modification Emissions (lbs/year)	Post Modification Emissions (lbs/year)	
Valves	Sealed Bellows	All	2	12	0	0	0
	SCAQMD Approved I & M Program	Gas / Vapor		0	4.55	0	0
		Light Liquid		0	4.55		
		Heavy Liquid		0	4.55		
Pumps	Sealless Type	Light Liquid		0			
	Double Mechanical Seals or Equivalent Seals	Light Liquid (4)		0	46.83		
	Single Mechanical Seals	Heavy Liquid (5)		0	46.83		
Compressors	Gas / Vapor		0	9.09			
Flanges (ANSI 16.5-1988)	All	5	23	6.99	34.95	160.77	
Connectors	All		0	2.86	0	0	
Pressure Relief Valves	All		1	0			
Process Drains with P-Trap or Seal Pot	All		0	9.09			
Other (including fittings, hatches, sight-glasses, and meters)	All	1	3	9.09	9.09	27.27	
Total Emissions (lbs/year)						44.04	188.04
Emissions Increase (lbs/day)							0.3945

Note:

- (1) All new source units are subject to SCAQMD BACT with monthly inspection and maintenance (I&M) and 500 ppm by OVA.
- (2) The non-zero BACT emission factors are based on an 80 percent reduction from the SCAQMD form R-3 factors.
- (3) Light liquid and gas/liquid streams: Liquid or gas/liquid stream with a vapor pressure greater than that of kerosene (>0.1 psia @ 100°F or 689 Pa @ 38°C), based on the most volatile class present at >20% by volume
- (4) Heavy liquid: streams with a vapor pressure equal to or less than that of kerosene (0.1 psia @ 100F or 689 Pa @ 38C) based on the most volatile class present >20% by volume.

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RULE EVALUATION:

PART 1 SCAQMD REGULATIONS

Regulation II- PERMITS

Rule 212	Standards for Approving Permits	November 14, 1997
212 (a)	The applicant is required to show that the equipment, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, is so designed, controlled, or equipped with such air pollution control equipment that it may be expected to operate without emitting air contaminants in violation of provisions of Division 26 of the State Health and Safety Code of these rules. The operation of the Alkylation Unit is expected to comply with this requirement.	
212(c)(1)	Public notification is required if any new or modified permit unit, source under Regulation XX, or equipment under Regulation XXX may emit air contaminants located within 1000 feet from the outer boundary of a school. The source is not within 1000 feet of a school, public notification is therefore not required.	
212(c)(2)	Public notification is required if any new or modified facility has on-site increases exceeding any of the daily maximums specified in subdivision (g) of this rule. The modification of the Alkylation Unit has an increase of 0.4 lbs/day of ROG emissions, however it does not exceed any of the daily maximums specified, public notification is therefore not required.	
212(c)(3)	Public notification is required if the maximum individual cancer risk (MICR), based on Rule 1401, exceeds one in a million (1×10^{-6}), due to a project's new construction or proposed modification. The	



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modification of the Alkylation Unit does not result in MICR exceeding one in a million, public notification is therefore not required.

212(g)

This subdivision sets forth the process for federal public notification and distribution and specifies the daily maximum emissions increase as follows:

Air Contaminant Daily Maximum in lbs/day

Volatile Organic Compounds 30

Nitrogen Oxides 40

PM10 30

Sulfur Dioxide 60

Carbon Monoxide 220

Lead 3

The increase of ROG emissions is less than 1 lb/day; therefore, no public notice is required.

Regulation IV PROHIBITIONS

Rule 401

Visible Emissions

November 9, 2001

Visible emissions are not expected under normal operating conditions of the unit.

Rule 402

Nuisance

May 7, 1976

Nuisance complaints associated with the above project are not expected under normal operating conditions.



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Regulation XI Source Specific Standards

<i>Rule 1123</i>	<i>Refinery Process Turnaround</i>	<i>December 7, 1990</i>
(b) Requirements	<p>(1) During process turnarounds, the operator shall not depressurize any vessel containing organic materials unless the vapors released from the vessel are collected and contained for use as fuel or sent to a gas disposal system until the pressure in the vessel is below 5 psig, or is within 10 % above the minimum gauge pressure at which the vapors can be collected, whichever is lower.</p> <p>(2) If the refinery uses inert gas displacement or vacuum eduction for process turnaround, the refinery operator shall submit a Rule 1123 plan per Rule 1123(b)(2). Tesoro submitted R1123 plan under A/N 474117 and it was approved and was issued on 7/21/10.</p>	
(c) Recordkeeping	<p>The operator is required to maintain a record of each refinery process unit turnaround containing at a minimum the date the unit was shut down, the approximate vessel hydrocarbon concentration when hydrocarbons were first discharged into the atmosphere, and the approximate amount of hydrocarbons emitted into the atmosphere.</p> <p>Each process unit with a vessel containing organic materials will contain a system condition (S13.4) that specifies that the devices in the systems are subject to Rule 1123.</p>	
<i>Rule 1173</i>	<i>Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants</i>	<i>December 6, 2002</i>
	<p>The proposed modification will add valves and flanges that are subject to control of fugitive emissions. Tesoro has an approved Inspection and Maintenance (I&M) Program (A/N 477506). Tesoro will include the new components into their I&M program.</p>	



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REG XIII

New Source Review

(Amended December 6, 2002)

The modification proposed in this project will cause an emission increase of ROG. The emission increase due to this project is shown in Table 3. The following is a discussion of each requirement in NSR.

BACT:
1303(a)

BACT has been included in the design of the proposed project. BACT means the most stringent emission limitation or control technique which:

- (1) has been achieved in practice for such category or class of source; or
- (2) is contained in any State Implementation Plan (SIP) approved by the US EPA for such category or class of source. A specific limitation or control technique shall not apply if the owner or operator of the proposed source demonstrates to the satisfaction of the Executive Officer or designee that such limitations or control technique is not presently achievable; or
- (3) is any other emission limitation or control technique, found by the Executive Officer or designee to be technologically feasible for such class or category of sources or for a specific source, and cost effective as compared to measures as listed in the Air Quality Management Plan (AQMP) or rules adopted by the District Governing Board.

Fugitive emissions. BACT is required for fugitive emission control and is follows:

- **Valves:** Bellow-sealed valves are required with the following exemptions which must be included in the approved I&M program,
 - 1. Heavy liquid service (i.e., streams with a vapor pressure <0.1 psia @ 100 °F (kerosene) based on the most volatile class present (> 20% by volume)
 - 2. Control valve
 - 3. Instrument tubing application
 - 4. Applications requiring torsional valve stem motion
 - 5. Applications where valve failure could pose safety hazard (e.g., drain valves with valve stem in horizontal position)



6. Retrofit/special applications with space limitation (special applications such as skid mounted standard packaged systems)

7. Valves not commercially available

Valves installed where Bellow-sealed valves are not available will be subject to a leak rate of less than 500 ppmv by EPA Method 21 and an approved I&M program.

- **Relief Valves:** All relief valves will be connected to a closed vent system or equipped with a rupture disc.
- **Process Drain:** Process drains will be equipped with p-traps or seal pots and included in the approved I&M program.
- **Pumps:** Pumps in light liquid service will be equipped with double or tandem seals vented to a closed system with a leak rate less than 1000 ppm by EPA Method 21 and included in an approved I&M program.
- **Flanges:** All flanges must meet ANSI/API standards and included in an approved I&M program

BACT is being applied for new fugitive components as follows:

Valves in Gas/Liquid Service: BACT for this equipment is leakless (bellow seal valves).

All new valves installed for this project will utilize bellow seal except as exempted pursuant to above exemptions.

1303(b)(1)

Modeling: The only emissions resulting from the proposed modification will be ROG. According to the screening requirements in Rule 1303 Appendix A, Table A-1, modeling is not required for ROG. Therefore, no air quality modeling is required for the new installations.

1303(b)(2)

Offset: Offset is not required; the VOC emissions are less than 0.42 lb/day

1303(b)(3)

Sensitive Zone Requirements. Offset is not required.

1303(b)(4)

Facility Compliance. Tesoro must comply with all applicable Rules and Regulations of the AQMD. According to the enforcement records, Tesoro is currently in compliance with all applicable rules and regulations of the District.

1303(b)(5)

Major Polluting Facilities. This Project is a modification at a major polluting facility. Therefore, the facility shall comply with the following requirements.

(A) *Alternative Analysis* – Applicant must conduct an analysis of alternative sites, sizes,

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production processes, and environmental control techniques for such proposed source and demonstrate that the benefits of the proposed project significantly outweigh the environmental and social costs associated imposed as a result of its location, construction, or modification (42 U.S.C. Section 7503(a)(5)). Since this project is exempt from CEQA analysis, it will be exempt from this requirement per (b)(5)(D)(i)

Rule 1401	<i>New Source Review of Toxic Air Contaminants</i>	<i>May 3, 2002</i>
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Cumulative increase in MICR, Chronic and Acute Hazardous Index is below the threshold specified in this rule. (Attachment 2). T-BACT which is the same as BACT for this project is also applied.

The results from the analysis are shown in the table below.

Results of Rule 1401 Analysis

Parameter	Results	Rule 1401 Requirements	Comply (Y/N)
MICR Residential	PASS	<1.0E-06 (no TBACT)	Yes
MICR Commercial	PASS	<10E-06 (w/TBACT)	Yes
HIA	N/A	<1.0	Yes
HIC	1.76E-03	<1.0	Yes
Cancer Burden	N/A	Applicable only if MICR >1.0E-06	N/A

Reg XXX	<i>Title V Permits</i>	<i>March 16, 2001</i>
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The Tesoro Los Angeles Refinery has been designated as a Title V facility. The initial Title V permit was issued on November 23, 2009. Tesoro Refinery is currently subject to Title V. The permit issued for storm water tank will be issued as a revision of the Title V permit. Permit revisions are categorized into the following four types: administrative, minor, de minimus significant and significant.

As defined in Rule 3000(b)(7), a De-Minimus Significant permit revision means any Title V permit revision where the cumulative emission increases of non-RECLAIM pollutants or hazardous air pollutants (HAP) from these permit revisions during the term of the permit are



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not greater than any of the emission threshold levels in Table below.

De Minimis Emission Threshold Level

<u>Air Contaminant</u>	<u>Daily Maximum lbs/day</u>
Volatile Organic Compounds	30
Nitrogen Oxides	40
PM10	30
Sulfur Dioxide	60
Carbon Monoxide	220
Lead	3

Since the proposed applications for the alkylation unit has an emission increase of VOC and do not exceed the cumulative thresholds (see the table below), the Title V permit revision A/N 551268 qualifies as **a De Minimis Significant Revision**, which will be sent to EPA for a 45-day review. Public notice is not required. A final copy of the permit will be submitted to the EPA within 5 working days of its issuance.

Summary of Emission Increases for De Minimis Significant Revisions of Tesoro Title V Permit

A/N	Equipment	Section	Rev #	Revision date	Emissions Increase (lb/day)				
					VOC	C O	PM	NOX	S O X
469915	Separator V-1507 and V-1508/V-1509	D	7	7/9/2010	0.43				
470283	Catalytic Reforming Unit No. 2	D	7	1/1/2010	3				
520256	Stormwater storage tank 80089	D	13	7/19/2011	0.22				
519205	Caustic/spent caustic Storage Tank	D	14	8/12/2011	0				
519207	Caustic/spent caustic Storage Tank	D	14	8/12/2011	0				
519208	Caustic/spent caustic Storage Tank	D	14	8/12/2011	0				
519209	Caustic/spent caustic Storage Tank	D	14	8/12/2011	0.84				
530223	Caustic/spent caustic Storage Tank 742	D	28	4/19/2012	0.24				
544561	Internal floating roof storage tank 80072 storing light crude oil	D	33		3.8				
551269 ⁽²⁾	Alkylation Modification	H	20		0.39				
	Cumulative ⁽¹⁾				8.92				

(1) Cumulative emission increase for all De Minimis significant Title V permit revision since issuance of the initial Title V permit on May 17, 2013.

(2) This application is covered under the subject evaluation.

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PART 2 STATE REGULATIONS

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq., requires that the environmental impacts of proposed “projects” be evaluated and that feasible methods to reduce, avoid or eliminate significant adverse impacts of these projects be identified and implemented. According to the District’s CEQA guidelines, the thresholds for significant effect are:

- NOx 55 pounds per day
- ROG 55 pounds per day
- PM10 150 pounds per day
- CO 550 pounds per day
- SOx 150 lbs per day

The CEQA Applicability Form (400-CEQA) submitted by Tesoro indicates the expected impacts of the project on the environment are not significant since the net emission ROG increase does not trigger the thresholds ROG: 55 LBS/DAY of The District’s CEQA Guidelines. Therefore a CEQA analysis is not required.

PART 3 FEDERAL REGULATIONS

40CFR Part 63 Subpart CC	National Emission Standard for Hazardous Air Pollutants from Petroleum Refineries
§63.648	This process unit is subject to the equipment leak standards, detection, and repair requirements of 40.CFR63 Subpart CC, Section 63.648. The equipment leak inspection and monitoring requirements of Rule 1173 are in general more stringent than that specified in Section 63.648. Therefore, compliance with the inspection, maintenance, and recordkeeping requirements of this rule are expected.

40 CFR Part 60 Subpart GGGa	Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification commenced after November 7, 2006
	This modification results in increase in emissions of less than 1 lb/day. Therefore subpart GGGa is not applicable



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**40CFR60
Subpart QQQ**

Standards of Performance for VOC Sources from Petroleum Refinery Wastewater Systems

This regulation is applicable to a facility located in petroleum refineries for which construction, modification, or reconstruction commenced after May 4, 1987. The following are separate affected facilities under this regulation:

- An individual drain system (all process drains connected to the first common downstream junction box, together with their associated sewer lines and junction boxes, downstream to the receiving oil-water separator)
- An oil-water separator
- An aggregate facility (individual drain system together with ancillary downstream sewer lines and oil-water separators)

According Tesoro, this project will not include the installation or modification of any process drains or wastewater system components. Compliance with this rule should not be impacted by the modification proposed for this project.

RECOMMENDATIONS

A permit to construct is recommended subject to the following conditions:

Additions are shown as underlined and deletions are shown as ~~strikeouts~~.

A/N 551269

PROCESS CONDITION

P13.1 All devices under this process are subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Benzene	40CFR61, Subpart	FF

[40CFR61 Subpart FF, 12-4-2003]

[Processes subject to this condition: 1, 2, 3, 4, 5, 6, 8, 9, 11, 12, 15]

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SYSTEM CONDITIONS

S13.4 All devices under this system are subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1123

[RULE 1123, 12-7-1990]

[Systems subject to this condition : Process 1, System 1 , 2; Process 2, System 1 , 3 , 4 , 6 , 7 , 10; Process 3, System 1 , 2 , 4 , 5; Process 4, System 1 , 3 , 5 , 7 , 9; Process 5, System 1 , 3 , 5; Process 6, System 1 , 3; Process 8, System 1; Process 9, System 1 , 2 , 3 , 4; Process 12, System 5 , 8; Process 19, System 3; Process 21, System 1 , 3]

S15.2 The vent gases from all affected devices of this process/system shall be vented as follows:

All emergency vent gases shall be directed to the refinery flares (process 21, system

1) or flare gas recovery system (process 21, system 4) which may also include DCU Blowdown Compressor C-137 (device D68) except Devices IDs D898, D20, D910, D1268, D1269, D1280, D93, D94, D96, D1283, D1284, D1288, D1292, D219, D226, D1212, D275, D1256, D375, D928, D1267 & D916 that vent to the atmosphere.

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

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

[Systems subject to this condition : Process 1, System 1 , 2; Process 2, System 1 , 3 , 6 , 10; Process 3, System 1 , 2 , 5; Process 4, System 1 , 3 , 5 , 7 , 9; Process 5, System 1 , 3 , 5; Process 6, System 1 , 3; Process 8, System 1; Process 9, System 1 , 2 , 3; Process 12, System 8; Process 19, System 3; Process 21, System 4]

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S15.5 The vent gases from all affected devices of this process/system shall be vented as follows:

All vent gases under normal operating conditions shall be directed to a vapor recovery system consisting of compressors, D641, 642, 643, and/or 644, which can be operated independently to maintain a system vacuum that efficiently collects all vented gases, except devices D305, 432, 1504-1507, 1514-1524 that vent to the flare system.

This process/system shall not be operated unless the vapor recovery system is in full use and has a valid permit to receive vent gases from this system.

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

[Systems subject to this condition : Process 9, System 1; Process 23, System 1]

S31.1 The following BACT requirements shall apply to VOC service fugitive components associated with the devices that are covered by application number(s) 347559, 347560, 347564, 366048, 366083, 376616, 376622, 376623, 376624, 376625, 376626, 376627, 376628 & 381228, 435139, 457927, 501287 & 501288:

All open-ended valves shall be equipped with cap, blind angle, 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 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.

All new components in VOC service, a leak greater than 500 ppm but less than 1,000 ppm measured as methane above background as measured using EPA Method 21, shall be repaired within 14 days of detection.

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

If 98.0 percent or greater of the new valve and the new flange population inspected is found to leak gaseous or liquid volatile organic compounds at a rate less than 500 ppm for two consecutive months, then the operator may revert to a quarterly inspection program with the approval of the executive officer. This condition does not apply to leakless valves.

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The operator shall keep records of the monthly inspection (and quarterly where applicable), subsequent repair, and reinspection, in a manner approved by the District.

The operator shall provide to the District, no later than 90 days after initial startup, a recalculation of the fugitive emissions based on actual components installed and removed from service. The operator shall also submit a complete, as built, piping and instrumentation diagram(s) and copies of requisition data sheets for all non-leakless type valves with a listing of tag numbers and reasons why leakless valves were not used.

For the purpose of this condition, leakless valve shall be defined as any valve equipped with sealed bellow or equivalent as approved in writing by the District prior to installation.

Components shall be defined as any valve, fitting, pump, compressor, pressure relief device, diaphragm, hatch, sight-glass, and meter, which are not exempt by Rule 1173.

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

[Systems subject to this condition : Process 2, System 1; Process 3, System 1; Process 4, System 1 , 3 , 7; Process 5, System 1 , 3 , 5; Process 6, System 1; Process 8, System1; Process 9, System 1; Process 15, System 3; Process 23, System 1]

S31.4 The following BACT requirements shall apply to VOC service fugitive components associated with the devices that are covered by application number(s) 520770 & **551269**:

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

All new valves in VOC service shall be leakless type, except those specifically exempted by Rule 1173 or approved by the District in the following applications: heavy liquid service, control valves, 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.

For the purpose of this condition, leakless valve shall be defined as any valve equipped with sealed bellows or equivalent approved in writing by the District prior to installation.

All new components in VOC service as defined by 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. Components shall be defined as any valve, flange, fitting, pump, compressor, pressure relief device, diaphragm, hatch, sight-glass, and meter, which are not exempted by Rule 1173.

The following leaks shall be repaired within 7 calendar days -- all light liquid/gas/vapor components leaking at a rate of 500 to 10,000 ppm, heavy liquid components leaking at a rate

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of 100 to 500 ppm and greater than 3 drops/minute, unless otherwise extended as allowed under Rule 1173.

The following leaks shall be repaired within 2 calendar days -- any leak between 10,000 to 25,000 ppm, any atmospheric PRD leaking at a rate of 200 to 25,000 ppm, unless otherwise extended as allowed under Rule 1173.

The following leaks shall be repaired within 1 calendar day -- any leak greater than 25,000 ppm, heavy liquid leak greater than 500 ppm, or light liquid leak greater than 3 drops per minute.

If 98.0 percent or greater of the new valve and the new flange population inspected is found to leak gaseous or liquid volatile organic compounds at a rate less than 500 ppmv for two consecutive months, then the operator may revert to a quarterly inspection program with the approval of the Executive Officer. This condition shall not apply to leakless valves.

The operator shall revert from quarterly to monthly inspection program if less than 98.0 percent of the new valves and the new flange population inspected are found to leak gaseous or liquid volatile organic compounds at a rate less than 500 ppmv. This condition shall not apply to leakless valves.

The operator shall keep records of the monthly inspection (quarterly where applicable), subsequent repair, and reinspection, in a manner approved by the District.

The operator shall provide to the District, prior to initial startup, a list of all non-leakless type valves that were installed. The list shall include the tag numbers for the valves and reasons why leakless valves were not used. The operator shall not startup the equipment prior to the Districts approval for the use of all non-leakless valves

The operator shall provide to the District, no later than 90 days after initial startup, a recalculation of the fugitive emissions based on actual components installed and removed from service. The operator shall also submit a complete, as built, piping and instrumentation diagram(s) and copies of requisition data sheets or field inspection surveys for all non-leakless type valves with a listing of tag numbers and reasons why leakless valves were not used.

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

[Systems subject to this condition: Process 2, System 6, **Process 9, System 1**]

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DEVICE CONDITIONS

H23.4 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/ Subpart
VOC	40CFR60, SUBPART	GGG

[40CFR 60 Subpart GGG, 6-2-2008]

[Devices subject to this condition: D68, D377, D901, D918]

H23.16: This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/ Subpart
VOC	District Rule	1173
VOC	40CFR60	GGG

[RULE 1173, 5-13-1994; RULE 1173, 12-6-2009; 40CFR 60 Subpart GGG, 6-2-2008]

[Devices subject to this condition: D1365, D1380]

A/N 551270-Flare conditions

SYSTEM CONDITIONS

S13. 4 All devices under this system are subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1123

[RULE 1123, 12-7-1990]

[Systems subject to this condition : Process 1, System 1 , 2; Process 2, System 1 , 3 , 4 , 6 , 7 , 10; Process 3, System 1 , 2 , 4 , 5; Process 4, System 1 , 3 , 5 , 7 , 9; Process 5, System 1 , 3 , 5; Process 6, System 1 , 3; Process 8, System 1; Process 9, System 1 , 2 , 3 , 4; Process 12, System 5 , 8; Process 19, System 3; Process 21, System 1 , 3]

S18.2 All affected devices listed under this process/system shall be used only to receive, recover and/or dispose of vent gases routed from the system(s) or process(es) listed below, in addition to specific devices identified in the "connected to" column:

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Crude Distillation Unit (Process: 1, System: 1 & 2)

Delayed Coking Unit (DCU) (Process: 2, System: 1, 3, 6 & 10)

Fluid Catalytic Cracking Unit (FCCU) (Process: 3, System: 1, 2, 4 & 5)

Hydrotreating Units (Process: 4, System: 1, 3, 5, 7 & 9)

Catalytic Reforming Units (Process: 5, System: 1, 3 & 5)

Hydrogen Generation Units (Process: 6, System: 1 & 3)

Hydrocracking Unit (Process: 8, System: 1)

Alkylation Unit (Process: 9, System: 1, 2 & 3)

Fuel Gas Treating System (Process: 12, System: 8)

Loading and Unloading (Process: 14, System: 2 & 3)

Pressurized Storage Tanks (Process: 15, System: 3)

Fuel Gas Mix System (Process: 19, System: 3)

Isomerization Unit (Process: 23, System: 1)

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

[Systems subject to this condition : Process 21, System 1]

DEVICE CONDITIONS

D. Monitoring/Testing Requirements

D12.4 The operator shall install and maintain a(n) thermocouple to accurately indicate the presence of a flame at the pilot light.

**[RULE 1118, 11-4-2005; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997;
40CFR 60 Subpart A, 6-13-2007]**

[Devices subject to this condition: C747, C748]

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D323.2

The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on a bi-weekly basis, at least, unless the equipment did not operate during the entire bi-weekly period. The routine bi-weekly inspection shall be conducted while the equipment is in operation and during daylight hours.

If any visible emissions (not including condensed water vapor) are detected that last more than three minutes in any one hour, the operator shall verify and certify within 24 hours that the equipment causing the emission and any associated air pollution control equipment are operating normally according to their design and standard procedures and under the same conditions under which compliance was achieved in the past, and either:

- 1). Take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in section k of this permit; or
- 2). Have a CARB certified smoke reader_ determine compliance with the opacity standard, using EPA method 9 or the procedures in the CARB manual "visible emission evaluation" within three business days and report any deviations to AQMD.

The operator shall keep the records in accordance with the recordkeeping requirements in section k of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions;
- 3). Date and time visible emission was abated; and
- 4). All visible emission observation records by operator or a certified smoke reader.

[**RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; RULE 401- 3-2-1984, RULE 401-11-9-2001**]

[Devices subject to this condition: C747, C748]

E. Equipment Operation/Construction Requirements

E193.1

The operator shall operate and maintain this equipment according to the following specifications:

The operator shall comply with all applicable requirements specified in Section 60.18 of the 40CFR60 Subpart A

[**40CFR 60 Subpart A, 4-9-1993**]

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[Devices subject to this condition: C747,C748]

H. Applicable Rules

H23.5 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/ Subpart
VOC	District Rule	1173

[**RULE 1173, 5-13-1994**; RULE 1173, 2-6-2009]

[Devices subject to this condition : D1354, D1355, D1359, D1361, D1362, D1363,D1366, D1367, D1399, D1415, D1416, D1419, D1425, D1443, D1444, D1459,D1460, D1461, D1465, D1466, D1467, D1469, D1470, D1471, D1473, D1477,D1553, D1556, D1557, D1561]

H23.38 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/ Subpart
VOC	District Rule	1118

[**RULE 1118, 11-4-2005**]

[Devices subject to this condition: C747,C748]

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Attachments

1.	NOV's and NC's Issued
2.	Rule 1401 Analysis
3.	Compliance Certification letter