



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES 22	PAGE 1
APPL. NO. 552032	DATE 08/20/13
PROCESSED BY R. Sanford	CHECKED BY

PERMIT TO CONSTRUCT/ PERMIT TO OPERATE

-Modification -

A/N 552032

COMPANY NAME: Chevron Products Company

MAILING ADDRESS: 324 W. El Segundo Blvd  
El Segundo, CA 90245

EQUIPMENT LOCATION: 324 W. El Segundo Blvd.  
El Segundo, CA 90245

BACKGROUND / SUMMARY:

Chevron proposes to reconstruct Domed External Floating Roof Tank No. 189. The reconstruction will include replacement of the "second" floor, the shell and the roof. The existing foundation, which is considered to be the "first" floor and the geodesic dome cover will not be modified. The existing riveted tank shell will be replaced with a welded shell and the existing pontoon floating roof will be replaced with a pontoon roof with upgraded fittings.

EQUIPMENT DESCRIPTION:

The permit to operate for the subject storage tank is currently listed in Section D of Chevron's RECLAIM/Title V Facility Permit. A Permit to construct and operate is proposed for issuance in Section D of the RECLAIM/Title V Facility Permit. The proposed permit pages are contained in this section. In these proposed permit pages, new text is indicated by underline and deleted text is indicated by strikeout.

Section D: Facility Description and Equipment Specific Conditions

Description	ID No.	Connected To	RECLAIM Source Type	Emissions and Requirements	Conditions
<b>Process 16: STORAGE TANKS</b>					P13.1
<b>System 10: DOMED EXTERNAL FLOATING ROOF TANK</b>					S13.9, S31.15, S31.20
STORAGE TANK, DOMED EXTERNAL FLOATING ROOF, NO. 189, <del>RIVETED</del> <u>WELDED</u> SHELL, WITH EXTERNAL HEATING SYSTEM (STEAM HEAT SOURCE); 61790 BBL; DIAMETER: 115 FT; HEIGHT: 34 FT 6 IN, WITH DOMED COVER, GEODESIC	D1364			BENZENE: (10) [40CFR61 Subpart FF_02, 12-4-2003]; HAP: (10) [40CFR 63 Subpart CC, #3A, 6-23-2003]	<u>B22.35, C1.155, D90.36, E71.74, H23.1, H23.17, K67.44, K67.54, K171.13, K171.34</u>



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES 22	PAGE 2
APPL. NO. 552032	DATE 08/20/13
PROCESSED BY R. Sanford	CHECKED BY

Description	ID No.	Connected To	RECLAIM Source Type	Emissions and Requirements	Conditions
FLOATING ROOF, PONTOON, WELDED PRIMARY SEAL, CATEGORY A, LIQUID MOUNTED, WIPER TYPE SECONDARY SEAL, CATEGORY A, RIM MOUNTED, WIPER TYPE GUIDEPOLE, SLOTTED, WITH GASKETED SLIDING COVER, POLE SLEEVE, AND POLE WIPER A/N: <u>511145 552032</u>					

**PROCESS CONDITIONS**

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

Contaminant	Rule	Rule/Subpart
Benzene	40CFR61	Subpart FF

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

[Processes subject to this condition: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16]

**SYSTEM CONDITIONS:**

**S13.9** All devices under this system are subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	463
VOC	District Rule	1149
VOC	District Rule	1178

For Rule 463 applicability, only subdivision (d) in the March 11, 1994 amendment, or equivalent requirements in the future amendments, shall apply to domed external floating roof tanks. This does not preclude any requirements specified in Rule 1178.

[RULE 1149, 5-2-2008; RULE 1178, 4-7-2006; RULE 463, 5-6-2005]

[Systems subject to this condition: **Process 16, System 10**]



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES 22	PAGE 3
APPL. NO. 552032	DATE 08/20/13
PROCESSED BY R. Sanford	CHECKED BY

**S31.15** The following BACT requirements shall apply to VOC service fugitive components associated with the devices that are covered by application number(s) 378811, 380595, 380596, 380597, 380611, 385372, 385373, 385374 and 475142:

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, 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 R1173, 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 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.



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES 22	PAGE 4
APPL. NO. 552032	DATE 08/20/13
PROCESSED BY R. Sanford	CHECKED BY

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

[Systems subject to this condition : Process 1, System 18; Process 3, System 5; Process 4, System 3 , 4; Process 8, System 8; Process 14, System 28; **Process 16, System 8 , 10**]

**S31.20** The following BACT requirements shall apply to VOC service fugitive components associated with the devices that are covered by application number(s) 466876, 467141, 467544, 470739, 470782, 469794, 516645 and 526607:

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 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.



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES  
22

PAGE  
5

APPL. NO.  
552032

DATE  
08/20/13

PROCESSED  
BY R. Sanford

CHECKED  
BY

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 District's 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 12, System 28; Process 13, System 11; **Process 16, System 10**; Process 17, System 7; Process 20, System 37]

**Device Conditions**

**B22.35** The operator shall only use this equipment with materials having a(n) true vapor pressure of 8.99 psia or less under actual operating conditions.

**[RULE 1303(b)(2)-Offset, 5-10-1996]**

[Devices subject to this condition: **D1364**]

**C1.155** The operator shall limit the throughput to no more than 105,159 barrels in any one calendar month.

The operator shall calculate the throughput, in barrels, by the following equation:  $0.14 \times D \times D \times L$ , where D is the diameter of the tank in feet based on the tank strapping chart and L is the total vertical one-way roof travel in feet per month.

The operator shall install and maintain an automatic tank level gauge (ATLG) and recorder to continuously record the vertical movement of the roof. For the purpose of this condition, continuous recording is defined as once per hour.

The operator shall calculate the total one-way roof movement, in feet, on a daily and monthly basis.

The ATLG installed 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 1.0 inch or 0.8%, whichever is greater, the ATLG shall be repaired and put back into service within 10 days. While the ATLG is being repaired, the throughput shall be determined by the hourly tank level data averaged from the previous 30 days prior to the discovery of the discrepancy.

In the event of a failure or routine maintenance of the ATLG, the ATLG shall be repaired (if necessary) and put back into service within 10 days of the time that the



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES  
22

PAGE  
6

APPL. NO.  
552032

DATE  
08/20/13

PROCESSED  
BY R. Sanford

CHECKED  
BY

ATLG failed or was removed from service for maintenance. While the ATLG is being repaired or maintained, the throughput shall be determined by the hourly tank level data averaged from the previous 30 days prior to the time that the ATLG went out of service.

**[RULE 1303(b)(2)-Offset, 5-10-1996]**

[Devices subject to this condition: [D1364](#)]

**D90.36** The operator shall periodically monitor the vapor pressure of the material stored in this storage tank according to the following specifications:

The operator shall determine the true vapor pressure by one of the following methods: 1) sample and test the materials stored, 2) derive the vapor pressure using engineering calculations, or 3) maintain on file a copy of the Material Safety Data Sheet (MSDS) of the material stored.

Records of material stored, and their MSDS if applicable, shall be retained for a period of five years and made available to the Executive Officer upon request.

**[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]**

[Devices subject to this condition: D1270, D1277, D1278, D1279, D1280, D1285, D1286, D1287, D1288, D1290, D1292, D1293, D1300, D1301, D1303, D1329, D1335, D1352, D1358, [D1364](#), D1366, D1371, D1373, D1417, D1420, D1429, D1439, D1443, D1452, D1453, D1454, D1455, D1464, D1608, D1609, D1610, D1611, D1612, D1613, D1614, D1615, D1616, D1617, D1686, D2177, D2183, D3944, D4119, D4121, D4123, D4125, D4127, D4129, D4131, D4133, D4135, D4137, D4139, D4141, D4143, D4145, D4147, D4149, D4151, D4153, D4155, D4157, D4159, D4161, D4163, D4165, D4167, D4169, D4171, D4173, D4175, D4177, D4179, D4181, D4183, D4185, D4187, D4189, D4191, D4193, D4195, D4197]

**E71.74** The operator shall only use this equipment for the storage of recovered oil.

[RULE 1401, 9-10-2010]

[Devices subject to this condition: [D1364](#)]

**H23.1** This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Benzene	40CFR61	Subpart FF

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

[Devices subject to this condition: D1237, D1318, D1326, D1338, D1343, D1345, D1354, [D1364](#), D1365, D1369, D1379, D1380, D1381, D1383, D1385, D1388, D1406, D1407, D1427, D1434, D2151, D2152, D3958]



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES 22	PAGE 7
APPL. NO. 552032	DATE 08/20/13
PROCESSED BY R. Sanford	CHECKED BY

**H23.17** This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Benzene	40CFR61, Subpart	FF
VOC	40CFR60, Subpart	Kb

**[40CFR 60 Subpart Kb, 10-15-2003; 40CFR 61 Subpart FF, 12-4-2003]**

[Devices subject to this condition: D1269, D1323, D1327, D1335, D1336, D1347, D1348, D1352, **D1364**, D1367, D1374, D1394, D1401, D1402, D1413, D1414, D1415, D1459, D1465, D1473, D1608, D1609, D1610, D1611, D1612, D1613, D1614, D1615, D1616, D1617, D4119, D4121, D4123, D4125, D4127, D4129, D4131, D4133, D4135, D4137, D4139, D4141, D4143, D4145, D4147, D4149, D4151, D4153, D4155, D4157, D4159, D4161, D4163, D4165, D4167, D4169, D4171, D4173, D4175, D4177, D4179, D4181, D4183, D4185, D4187, D4189, D4191, D4193, D4195, D4197]

**K67.44** The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Tank throughput in barrels.

Commodity/product stored and time period of its storage.

Actual vapor pressure, in psia, of each commodity/product stored.

Hydrocarbon concentration measurements done in the vapor space above the floating roof of the tank.

Other records that may be required to comply with the applicable requirements of District Rules 463(d), 1149, 1178, 40CFR 61 Subpart FF, 40CFR60 Subpart Kb and 40CFR 63 Subpart CC.

**[RULE 1149, 5-2-2008; RULE 1178, 4-7-2006; RULE 463, 5-6-2005; 40CFR 61 Subpart FF, 12-4-2003; 40CFR 63 Subpart CC, 6-23-2003]**

[Devices subject to this condition: **D1364**, D1394, D1459]

**K67.51** The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Tank throughput in barrels.

Commodity/product stored and time period of its storage.

Actual vapor pressure, in psia, of each commodity/product stored.

Hydrocarbon concentration measurements done in the vapor space above the floating roof of the tank.



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES  
22

PAGE  
8

APPL. NO.  
552032

DATE  
08/20/13

PROCESSED  
BY R. Sanford

CHECKED  
BY

Other records that may be required to comply with the applicable requirements of District Rules 463(d), 1149, 1178, 40CFR 61 Subpart FF, and 40CFR 63 Subpart CC.

[RULE 1149, 5-2-2008; RULE 1178, 4-7-2006; RULE 463, 5-6-2005; 40CFR 61 Subpart FF, 12-4-2003; 40CFR 63 Subpart CC, 6-23-2003]

[Devices subject to this condition: D1343, D1352, **D1364**, D1369, D1380, D1381, D1388, D1406]

**K171.13** The operator shall provide to the District the following items:

Final Drawings and/or specifications of the geodesic dome cover to be installed/constructed shall be submitted to the District within 30 days after its construction.

[RULE 1178, 4-7-2006]

[Devices subject to this condition : D1343, D1347, **D1364**, D1367, D1381, D1388, D1389, D1460, D1465, D1473]

**K171.34** The operator shall provide to the District the following items:

Final Drawings and/or specifications of the equipment installed/constructed shall be submitted to the District within 30 days after its construction.

[RULE 1178, 4-7-2006; RULE 1303(b)(2)-Offset, 5-10-1996]

[Devices subject to this condition : **D1364**]

**FEE ANALYSIS**

**Summary of Fee Analysis**

A/N	Equipment Description	BCAT/ CCAT	Fee Schedule	Fee Type	Fiscal Year (1)	Fee
552032	External Floating Roof Storage Tank - Residual	335904 (BCAT)	C	Modification	12-13	\$ 3,440.06
				Expedited Permit Processing	12-13	\$ 1,720.03
552033	RECLAIM/Title V Permit	555009 (BCAT)	na.	RECLAIM/Title V Permit Revision	12-13	\$ 1,789.12
<b>Total</b>						<b>\$ 6,949.21</b>
<b>Fees Paid</b>						<b>\$ 6,949.21</b>
<b>Outstanding Balance</b>						<b>\$ 0.00</b>

(1) Based on the date that the application was submitted.



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES  
22

PAGE  
9

APPL. NO.  
552032

DATE  
08/20/13

PROCESSED  
BY R. Sanford

CHECKED  
BY

**COMPLIANCE RECORD REVIEW:**

There is no record of a compliance problem related to the operation of this storage tank.

**PERMIT HISTORY:**

The permitting history for this tank is shown in the following table.

**Permit History for Tank 189 (D1364)**

Permit to Construct		Permit to Operate		Description of Modification
No.	Issue Date	No.	Issue Date	
				According to records, this was a cone roof tank until 1950. At that time the cone roof was replaced with a floating pan roof.
A21144	1964	P04928		Not clear from the records what this application was for. Mentioned that the tank was utilized for storage of recovered oil.
C12686	6/28/77			Convert roof from Pan type to Double Deck type and added a secondary seal.
C25843	9/19/79			Replaced the secondary seal with a new type. Primary seal is listed as metallic shoe.
C29105	8/15/80	M18451		Replaced the secondary seal with a new type. No increase in emissions. Primary seal is listed as metallic shoe.
171137	9/26/88	D37745	4/24/91	Replaced the metallic shoe primary seal with a liquid mounted wiper type and replaced the secondary seal (also a wiper type).
244616		D77080	9/23/93	Installation of an external heating system (heating/pumping pad) for separation of oil/water. Heater was installed in 1990 but application was submitted in 1991 as a Class III.
393029	na.	F49920	3/11/02	Administrative Appl: Correct the seal type from "Metallic Shoe" to "Wiper Type".
403096	na.	F53855	7/30/02	Administrative Appl: To remove "RIVETED" from the description of the tank roof since this describes the tank construction and not the roof and change the tank height based on a recent strapping chart.
434009	12/13/05	na.	na.	Revise roof type description from "double deck" to "pontoon"; add an existing 'external heater' to the equipment description; add "riveted shell" to the description; and add the existing slotted guidepole to the equipment description. PC originally covered installation of a dome cover but the PC expired without the dome being installed.
511145	na.	G9281	7/21/10	Permit to construct and operate for installation of a geodesic dome cover as a Phase II tank under Rule 1178(d)(2)(A).



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES 22	PAGE 10
APPL. NO. 552032	DATE 08/20/13
PROCESSED BY R. Sanford	CHECKED BY

Permit to Construct		Permit to Operate		Description of Modification
No.	Issue Date	No.	Issue Date	
552302	na.	na.	na.	Subject application for reconstruction of the tank

Based on this permit history, the subject tank is a pre-NSR tank because changes made to the tank after 1976 did not result in an emission increase that triggered NSR.

**PROCESS DESCRIPTION:**

A description of Tank No. 189 (D1364) is contained in the equipment description above. There are no permit conditions that limit the commodity type, throughput, or vapor pressure. The tank has stored recovered oil in the past and will store recovered oil following completion of the proposed modifications. The following table shows the current and proposed roof openings / fittings for the pontoon roof.

Roof Opening/Fitting or Seal	Existing	Proposed
Access Hatch (Bolted Cover, Gasketed)	2	2
Automatic Gauge Float Well (Bolted Cover, Gasketed)	1	2
Gauge Hatch-Sample Well (Weighted Mechanical Actuation, Gasketed)	2	2
Vacuum Breaker (Weighted Mechanical Actuation, Gasketed)	2	2
Deck Drain (3 in. Diameter/90% Closed)	0	0
Roof Leg (Adjustable, Pontoon Area, Sock)	10	22
Roof Leg (Adjustable, Center Area, Sock)	25	12
Slotted Guidepole (Gasketed Sliding Cover w/Pole Sleeve and Wiper)	1	1
Slotted Guidepole (Gasketed Sliding Cover w/Float, Pole Sleeve & Wiper)	0	0
Primary Seal/Liquid Mounted Wiper	1	1
Secondary Seal/Rim Mounted	1	1

**CALCULATION:**

Tank 189 is a pre-NSR storage tank that is not subject to any permit limits on throughput, commodity or vapor pressure. Therefore, the net emission change caused by reconstruction of the tank is calculated according to Rule 1306(d)(2) as the post-modification maximum potential to emit (PTE) calculated pursuant to 1306(b) minus the pre-modification actual emissions calculated pursuant to Rule 1306(c)(1).

According to 1306(b), the post modification maximum PTE is calculated from permit conditions which directly limit the emissions or, when no such conditions are imposed, from: (1) the maximum rated capacity; and (2) the maximum daily or monthly hours of operation as applicable; and (3) the physical characteristics of the material processed. Since the subject tank is not subject to direct emission limits, the physical properties and maximum throughput of the commodity with the highest vapor pressure is utilized to estimate the post-modification



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES 22	PAGE 11
APPL. NO. 552032	DATE 08/20/13
PROCESSED BY R. Sanford	CHECKED BY

maximum PTE. To limit the maximum PTE of the subject tank, the permit will be conditioned with throughput and vapor pressure limits.

According to 1306(c)(1), the pre-modification emissions are calculated as the average annual actual emissions during the two-year period immediately preceding the date of permit application, or other appropriate period determined by the Executive Officer or designee to be representative of the source's cyclical operation, and consistent with federal requirements. These actual emissions are determined from company records including annual emissions declarations pursuant to Rule 301 or other approved data.

Chevron took Tank 189 out of service during the last half of 2010 to install a geodesic dome cover to comply with the requirements of Rule 1178(d)(2)(A) as a phase II tank. Chevron determined at that time that the shell should be replaced and the roof should be replaced/upgraded to meet the requirements of API Standards 650 and 653 before the tank is put back into service. Since the tank was taken out of service in 2010 to comply with a District rule, the two-year period of 2008 and 2009 is determined to be representative of the tank's normal operation. Therefore, the VOC emissions reported on Chevron's 2008 and 2009 Annual Emissions Reports (AERs) are used to determine the pre-modification actual emissions for the tank.

Post-modification maximum potential VOC emissions for the tank are estimated with the EPA Tanks 4.0.9d program. The properties of the recovered oil stored in the tank are variable. Recovered oils with higher viscosity must be heated with the external heating system. Based on historical data, Chevron determined that the maximum potential true vapor pressure (TVP) for recovered oil is 8.99 psia at a storage temperature of 120°F. Therefore, the permit will be conditioned with a TVP limit of 8.99 psia and post-modification maximum potential VOC emissions are calculated at a TVP of 8.99 psia. Chevron proposes an annual throughput of 53,000,000 gal/yr (1,261,905 bbl/yr).

Estimated pre- and post-modification VOC emissions are shown in the table below. As seen in the table, the estimated VOC emission increase is 0.99 lb/day (30-day avg.).

Summary of VOC Emission Estimate

Pre-Modification				Post-Modification				Emission Increase
T'Put	TVP	Estimated Emissions		T'Put	TVP	Estimated Emissions		
bbl/yr	psia	lb/day (4)	lb/yr	bbl/yr	psia	lb/day (4)	lb/yr	lb/day (4)
215,631 (1)	1.91 (2)	4.50	1621 (3)	1,261,905	8.99	5.49	1975	0.99

(1) 2-yr avg. throughput for 2008 – 2009 (AER) = [(4,627,140 gal/yr + 13,509,497 gal/yr)/2]/42 bbl/yr

(2) 2-yr avg. true vapor pressure for 2008 – 2009 (AER) = [(1.64 psia + 2.18 psia)]/2



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES  
22

PAGE  
12

APPL. NO.  
552032

DATE  
08/20/13

PROCESSED  
BY R. Sanford

CHECKED  
BY

(3) 2-yr avg. VOC emissions for 2008 – 2009 (AER) = [(1370 lb + 1872 lb)]/2

(4) 30-day average = Annual emissions / 360

### EVALUATION AND RULE REVIEW:

#### California Environmental Quality Act (CEQA)

According to the District's CEQA Guidelines, the net emission increase thresholds for significant effect are:

ROG: 55 lb/day  
PM10: 150 lb/day  
CO: 274 lb/day

CEQA analysis is not required for this modification since there is no increase in the emissions of any of these criteria air pollutants and there are no other significant environmental impacts. On the 400-CEQA form, Chevron marked "No" to all of the additional criterion that may trigger CEQA. For these reasons, CEQA does not apply.

#### Regulation II: Permits

**212(c)(1):** Public notice is required for a project if any of the modified permit unit(s) are located within 1000 feet of a school. Public notice is not required under this clause since the tank is not located with 1000-foot of a school.

**212(c)(2):** Public notice is required for any "new or modified facility", which has on-site emission increases exceeding any of the daily maximums specified in subdivision (g) of Rule 212. The proposed reconstruction of the tank does not cause an increase in the emission of any criteria air pollutants that exceeds any of the following net emission increase thresholds that are specified in 212(g):

CO: 220 lb/day  
NOx: 40 lb/day  
Pb: 3 lb/day  
ROG: 30 lb/day  
PM10: 60 lb/day  
SOx: 30 lb/day

**212(c)(3):** Public notice is required for any new or modified permit units that have an increase in toxic air contaminants that results in an increase of maximum individual cancer risk (MICR) of more than one in a million ( $1 \times 10^{-6}$ ) during a lifetime (70 years). There is no increase in MICR so public notice is not required.

**212(g):** 212(g) specifies that any new or modified sources subject to Regulation XIII which undergo construction or modifications resulting in an emissions increase exceeding any of the daily maximum emission thresholds (listed in the table above) will require notification. From Regulation XIII (Rule 1302), the definition of "Source" is any permitted individual unit, piece of



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES 22	PAGE 13
APPL. NO. 552032	DATE 08/20/13
PROCESSED BY R. Sanford	CHECKED BY

equipment, article, machine, process, contrivance, or combination thereof, which may emit or control an air contaminant. This includes any permit unit at any non-RECLAIM facility and any device at a RECLAIM facility.

Public notice is not required under this clause since the proposed reconstruction of the tank roof does not cause an increase in the emission of any criteria air pollutants that exceeds the Rule 212(g) thresholds.

**Regulation IV: Prohibitions**

**Rule 401: Visible Emissions**

(b)(1) The subject equipment is expected to comply with visible emission limits. No increase in visible emission is expected with the requested modification.

**Rule 402: Nuisance**

No nuisance complaints are expected from this equipment. No complaints or violations have been recorded for the previous two years of operation of this tank. Compliance with this rule is expected.

**Rule 463: Storage of Organic Liquids**

This tank is subject to the requirements of this rule since it has a storage volume of greater than 19,815 gallons and stores organic liquids, which is any liquid containing VOCs. Domed External Floating Roof Tanks are subject only to the general requirements in Rule 463(d).

**463(d)(1) requires** a pressure-vacuum valve to be set within 10 percent of the maximum working pressure of the tank, for storage tanks between 251 and 19,815 gallons. This requirement does not apply to the subject tank since its capacity is greater than 19,815 gallons.

**463(d)(2) requires** the roof to float on the stored organic liquid at all time, except when emptied for cleaning or repair. The applicant is expected to comply with this requirement.

**463(d)(3) requires** the roof to be refloated with water, or equivalent, when being refilled with gasoline. This tank will not be permitted to store gasoline.

**463(d)(4) limits** the maximum vapor pressure to no more than 11 psia. The permit will be conditioned with a true vapor pressure limit of 8.99 psia. Compliance with this requirement is expected.

**463(d)(5) requires** replacement seals to be chosen from a list approved by the Executive Officer. The applicant is expected to comply with this requirement.

Compliance with the requirements of Rule 463(d) is expected.



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES  
22

PAGE  
14

APPL. NO.  
552032

DATE  
08/20/13

PROCESSED  
BY R. Sanford

CHECKED  
BY

**Regulation IX: Standards of Performance for New Stationary Sources (NSPS)**

Applicable facilities under this subpart are storage vessels with a capacity greater than 20,000 gallons that are used to store volatile organic liquids (VOL's) for which construction, reconstruction, or modification is commenced after July 23, 1984. The subject tank is not currently subject to this regulation. However, it will become subject to this regulation if the proposed replacement of the floor, shell and roof qualifies as a "modification" or "reconstruction" as defined in 40CFR60 Subpart A. The subpart A definitions follow:

40CFR60.14(a): Modification - "Except as provided under paragraphs (e) and (f) of this section, any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies". Emission increases are determined on a maximum hourly basis.

40CFR60.15(a&b): Reconstruction – "An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate. "Reconstruction" means the replacement of components of an existing facility to such an extent that:

- (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and
- (2) It is technologically and economically feasible to meet the applicable standards set forth in this part."

According to Chevron, the proposed replacement of the floor, shell and roof qualifies as reconstruction since the cost of construction does exceed 50% of the fixed capital cost for construction of a new tank. Therefore, Tank 189 will become subject to this regulation.

There are no requirements spelled out for Domed external floating roof tanks but the EFR requirements are most appropriate for Domed EFR tanks. Any external floating roof tank with a capacity greater than 40,000 gallons that stores a petroleum liquid with a vapor pressure from 0.75 psia to 11.1 psia must comply with the requirements below.

- **Roof and Seal Requirements:** pontoon or double-deck cover that is equipped with two seals one above the other. The primary seal must be a metallic shoe seal or a liquid-mounted seal. The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion. The subject tank meets these requirements with its pontoon roof with a liquid mounted wiper type primary seal and rim-mounted multiple wiper type secondary seal.
- **Opening/Fitting Requirements:** Subpart Kb includes the following requirements for roof openings: "except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES  
22

PAGE  
15

APPL. NO.  
552032

DATE  
08/20/13

PROCESSED  
BY R. Sanford

CHECKED  
BY

gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.”

The subject tank meets these fitting requirements. Note that the slotted guidepole complies with the “no visible gap” requirement through both the pole sleeve system and the dome cover on the tank. Compliance with this rule is expected. The permit for each tank will include condition H23.17, which specifies that the tank is subject to the applicable requirements of this regulation.

**Regulation X: National Emission Standards for Hazardous Air Pollutants (NESHAPS)**

**40CFR61: Subpart FF: National Emission Standard for Benzene Waste Operations**

This tank is subject to this regulation since it stores recovered oil that is recycled back into the process. This tank must meet the requirements of this rule as a waste management unit. Each tank utilized as a waste management unit under this regulation must either have a fixed roof with a closed vent system meeting the standards of 61.343 or have an internal floating roof tank that meets the standards of 40CFR60.112b(a)(1) [NSPS Subpart Kb], or have an external floating roof tank that meets the 40CFR60.112b(a)(2) [NSPS Subpart Kb].

40CFR60.112b(a)(2) for external floating roof tanks has the following requirements:

- Floating roof type must be pontoon or double deck
- The primary seal must be mechanical shoe or liquid mounted
- The secondary seal must completely cover the annular space between the roof and tank wall
- All roof appurtenances except automatic bleeder valves and rim space vents shall have a projection below the liquid surface
- Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be equipped with a gasketed cover, seal or lid that must remain closed at all times (ie. no visible gaps) except when the device is in actual use.
- The roof must be floating on the liquid at all times except during emptying and refilling.

This tank meets the roof type, seal type, and roof fitting/control requirements of this regulation.

**40CFR63: Subpart CC: National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries**

This Subpart applies to petroleum refining sources and related emission sources that are specified in section 63.640 (c) (5) through (c) (7) [e.g. miscellaneous process vents (except for FCCU, SRU, and CRU vents), storage vessels, wastewater stream, equipment leaks, gasoline loading racks, marine vessel loading, etc.] that are located in a major source and emit or have equipment contacting one or more of the hazardous air pollutants (HAPs) listed in Table 1 of this subpart.

According to Chevron, this storage tank is subject to this MACT standard as a Group 1 storage vessel. 63.640(n)(1) specifies that a Group 1 or Group 2 storage vessel that is part of an existing source and is also subject to the provisions of 40CFR60, Subpart Kb, is required only to comply with the requirements of 40CFR Subpart Kb. This tank will qualify for this exemption.



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES  
22

PAGE  
16

APPL. NO.  
552032

DATE  
08/20/13

PROCESSED  
BY R. Sanford

CHECKED  
BY

**Regulation XI: Source Specific Standards**

**Rule 1149: Storage Tank Degassing**

1149(c) contains the requirement that VOC emissions be controlled during cleaning /degassing activities for all tanks that meet the specified volume / vapor pressure thresholds. The threshold levels are:

- Volume  $\geq$  500 gallons and  $<$  26,420 gallons with Reid vapor pressure (RVP)  $>$  3.9 psi, or
- Volume  $\geq$  26,420 gallons and  $<$  100,000 gallons with Reid vapor pressure (RVP)  $>$  2.6 psi, or
- Volume  $\geq$  100,000 gallons with RVP  $>$  0.5 psi

This tank is subject to the cleaning/degassing requirements of this rule. Reconstruction of the tank does not impact compliance with these requirements. Compliance is expected.

**Rule 1173: Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants**

Chevron has an existing fugitive emission component leak detection and repair (LDAR) program for compliance with the requirements of this rule. No new fugitive components will be installed under this application. Compliance with the requirements of this rule is expected.

**Rule 1178: Further Reductions of VOC emissions from Storage Tanks at Petroleum Facilities**

This rule is applicable to this facility since it is a petroleum refinery with facility wide VOC emissions exceeding the 20 ton/year VOC threshold.

This rule applies to all aboveground storage tanks that have capacity equal to or greater than 75,000 liters (19,815 gallons), are used to store organic liquids with a true vapor pressure greater than 5 mm Hg (0.1 psi) absolute under actual storage conditions.

1178(d)(1)(A): This clause specifies the Roof Opening/ Fittings and Roof Seal requirements for external and domed external floating roof tanks. As shown in the table below, the proposed fittings/controls and seals for the pontoon roof meet the requirements of this rule.

**Summary of Roof Opening / Fitting Controls and Seals**

Roof Opening / Fitting or Seal Type	Roof Seal and Opening/Fitting Configuration		Applicable Rule 1178 Citation
	No	Type	
Access Hatch	2	Cover: bolted & gasketed	1178(d)(1)(A)(i)
Automatic Gauge Float Well	2	Cover: bolted & gasketed	1178(d)(1)(A)(i)
Gauge Hatch / Sample Well	2	Weighted mechanical actuation; Cover: gasketed.	1178(d)(1)(A)(ii)
Roof Legs	34	Adjustable; <del>gasket</del> or impervious sock cover	1178(d)(1)(A)(iii)
Rim Vent	0	Gasketed	1178(d)(1)(A)(iv)



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES 22	PAGE 17
APPL. NO. 552032	DATE 08/20/13
PROCESSED BY R. Sanford	CHECKED BY

Roof Opening / Fitting or Seal Type	Roof Seal and Opening/Fitting Configuration		Applicable Rule 1178 Citation
	No	Type	
Vacuum Breaker	2	Weighted mechanical actuation; Gasketed	1178(d)(1)(A)(v)
Roof Drain	0	Slotted membrane fabric cover that covers at least 90 percent of the area of the opening.	1178(d)(1)(A)(vi)
Slotted Guidepole	1	Gasketed sliding cover with pole wiper, and pole sleeve	1178(d)(1)(A)(ix) & 1178(d)(1)(A)(x)
Primary Seal	1	Mechanical Shoe or liquid mounted	1178(d)(1)(B)(i)
Secondary Seal	1	Rim mounted and shall not be attached to the primary seal.	1178(d)(1)(B)(ii)

1178(d)(2)(B): The subject tank is a Phase II tank for which a dome was installed before the December 31, 2010 compliance date.

**Regulation XIII: New Source Review**

**Rule 1303: Requirements**

This rule allows the Executive Officer to deny a Permit to Construct for any new, modified or relocated source which results in an emission increase of any nonattainment air contaminant, any ozone depleting compound, or ammonia, unless BACT is used. This rule also requires modeling and offset (among other requirements) if there is a net increase in any nonattainment air contaminants for any new or modified source. The definition of "Source" in Rule 1302(ao) is "any permitted individual unit, piece of equipment, article, machine, process, contrivance, or combination thereof, which may emit or control an air contaminant. This includes any permit unit at any non-RECLAIM facility and any device at a RECLAIM facility."

The South Coast Air Basin (SOCAB) is designated in attainment for CO, NO<sub>x</sub> and SO<sub>x</sub>. The following are currently considered nonattainment air contaminants: NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, and VOC. VOC & NO<sub>x</sub> are included since they are precursors for ozone. VOC, NO<sub>x</sub>, and SO<sub>x</sub> are included as PM<sub>10</sub> precursors. NO<sub>x</sub> and SO<sub>x</sub> emissions from RECLAIM Facilities are regulated under Regulation XX (RECLAIM). New Source Review (NSR) requirements for NO<sub>x</sub> and SO<sub>x</sub> are specified in Rule 2005.

The subject storage tank is not expected to emit ammonia, PM<sub>10</sub>, NO<sub>x</sub> or SO<sub>x</sub>. Therefore, it is only subject to NSR requirements for VOC.

**1303(a) - Best Available Control Technology (BACT):** Any new or modified source which results in an emission increase of any nonattainment air contaminant, any ozone depleting compound, or ammonia, must employ BACT for the new or relocated source or for the actual modification to an existing source. Per District policy, BACT is required for any increase in emissions that exceeds 1.0 lb per day on a maximum daily basis.

BACT is not required since the VOC emission increases is 0.99 lb/day, which is below the 1.0 lb/day threshold. The reconstructed tank will comply with current BACT for external floating



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES 22	PAGE 18
APPL. NO. 552032	DATE 08/20/13
PROCESSED BY R. Sanford	CHECKED BY

roof storage tanks since it will be equipped with a dome cover and seals and fittings that comply with District Rule 1178.

**1303(b)** – The following requirements apply to any new or modified source which results in a net emission increase of any nonattainment air contaminant. Each of the proposed tanks are subject to these requirements since they each have a net increase in VOC emissions.

**1303(b)(1): Modeling** - The applicant must substantiate with modeling that the new facility or modification will not cause a violation, or make significantly worse an existing violation of any state or national ambient air quality standards at any receptor location in the District. According to 1306(b), the new total emissions for modified sources shall be calculated on a pound per day basis for determination of BACT and modeling applicability. The modeling procedures are discussed in Appendix A to the rule. It is specified in Appendix A that modeling is not required for VOC or SOx.

Modeling is not required for the subject storage tank since it emits only VOC.

**1303(b)(2): Offsets** – Unless exempt from offsets requirements pursuant to Rule 1304, emission increases shall be offset by either Emission Reduction Credits approved pursuant to Rule 1309, or by allocations from the Priority Reserve. Per District policy, Offsets are required for any increase in emissions that exceeds 0.42 lb per day on a maximum daily basis. It is also District policy that offsets are calculated on a project basis. Since the refinery is located in the South Coast Air Basin (SOCAB), an offset ratio of 1.2-to-1.0 is required.

As seen in the following equation, Chevron will be required to provide 1 lb/day of VOC ERCs:  $0.99 \text{ lb/day} \times 1.2 = 1.19 \text{ lb/day}$ , which rounds down to 1 lb/day of ERC.

**1303(b)(3) - Sensitive Zone Requirements:** This section pertains to Emission Reduction Credits (ERCs) for facilities in the South Coast Air Basin (SOCAB). Except for credits that are obtained from the Priority Reserve, facilities are subject to the Sensitive Zone requirements (H&SC Section 40410.5) for ERCs. A facility in zone 1 may obtain ERCs originated in zone 1 only, and a facility in zone 2A may obtain ERCs from either zone 1 or zone 2A.

The El Segundo Refinery is located in Zone 1. Chevron will utilize ERC certificate no. AQ013076 to offset the 1 lb/day of VOC. The ERCs in ERC certificate no. AQ013076 were originally generated under ERC certificate number AQ000535 in 1991 at the AMVAC Chemical Corp. facility (ID 016865) located in Los Angeles, which is in Zone 1.

**1303(b)(4) - Facility Compliance:** The facility must be in compliance with all applicable rules and regulations of the District. Enforcement records were reviewed to determine current facility compliance status. According to the best knowledge of this reviewer, the Chevron El Segundo Refinery is currently in compliance with all applicable rules and regulations of the District.



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES 22	PAGE 19
APPL. NO. 552032	DATE 08/20/13
PROCESSED BY R. Sanford	CHECKED BY

**1303 (b)(5) - Major Polluting Facilities:** Any new major polluting facility (source) or major modification at an existing major polluting facility (source) must comply with the requirements of this section. A major modification is defined in 1302(r) as any modification at an existing major source that will cause

- an increase of one pound per day or more, of the facility's potential to emit (PTE) for NOx or VOC if the facility is located in the SOCAB , or
- an increase of 40 tons per year or more, of the facility's PTE for SOx, or
- an increase of 15 tons per year or more, of the facility's PTE for PM<sub>10</sub>; or,
- an increase of 50 tons per year or more, of the facility's PTE for CO.

The requirements of this section are not applicable since the increase in estimated VOC emissions for the reconstruction of this tank is less than 1 lb/day.

Rule 1325: Federal PM<sub>2.5</sub> New Source Review Program

This NSR rule for PM<sub>2.5</sub> was adopted by the District's Governing Board on June 3, 2011. The subject storage tank is not subject to any requirements under this regulation since it does not emit PM<sub>2.5</sub>.

**Regulation XIV: Toxic Air Contaminants**

Rule 1401 New Source Review of Toxic Air Contaminants

**Requirements** – Rule 1401 contains the following requirements:

- 1) *(d)(1) MICR and Cancer Burden* - The cumulative increase in MICR which is the sum of the calculated MICR values for all toxic air contaminants emitted from the new, relocated or modified permit unit will not result in any of the following:
  - (A) an increased MICR greater than one in one million ( $1.0 \times 10^{-6}$ ) at any receptor location, if the permit unit is constructed without T-BACT;
  - (B) an increased MICR greater than ten in one million ( $1.0 \times 10^{-5}$ ) at any receptor location, if the permit unit is constructed with T-BACT;
  - (C) a cancer burden greater than 0.5.
- 2) *(d)(2) Chronic Hazard Index* - The cumulative increase in total chronic HI for any target organ system due to total emissions from the new, relocated or modified permit unit will not exceed 1.0 at any receptor location.
- 3) *(d)(3) Acute Hazard Index* - The cumulative increase in total acute HI for any target organ system due to total emissions from the new, relocated or modified permit unit will not exceed 1.0 at any receptor location.

**Analysis** – As specified in 1401(g)(C), the requirements of subdivision (d) do not apply to a permit unit replacing a functionally identical permit unit, provided there is no increase in maximum rating or increase in emissions of any toxic air contaminants. The proposed tank is functionally identical to the existing tank and reconstruction of the tank will not cause an increase in the maximum rating/capacity of the tank. Therefore, the requirements of this regulation are not applicable.



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES 22	PAGE 20
APPL. NO. 552032	DATE 08/20/13
PROCESSED BY R. Sanford	CHECKED BY

**Regulation XVII - Prevention of Significant Deterioration (PSD)**

The PSD program is the federal New Source Review (NSR) program for pollutants for which an area is in attainment with or unclassified with respect to a National Ambient Air Quality Standard (NAAQS) and for Greenhouse Gases (GHGs).

**Rule 1703 – PSD Analysis (& Associated Rules 1701, 1702, 1704, 1706, 1710 & 1713)**

These rules contain the PSD requirements for attainment pollutants and selected unclassified pollutants. As discussed earlier, SOCAB is currently designated as attainment with NAAQSs for SO<sub>2</sub>, NO<sub>2</sub>, CO, and Lead. Tank 189 is not subject to any requirements under this regulation since it does not emit CO, NO<sub>2</sub>, SO<sub>2</sub>, or Lead.

**Rule 1714 – Prevention of Significant Deterioration for Greenhouse Gases**

This rule sets forth preconstruction review requirements for greenhouse gases (GHG), which is defined as an aggregate group of six GHGs: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

According to §52.21(b)(49)(i) – (v), the pollutant GHG is subject to requirements under this regulation if either of the following applies:

- A stationary source, which is an existing major stationary source for a regulated non-GHG NSR pollutant, undertakes a “major modification” that subjects the source to PSD permitting requirements for a non-GHG NSR pollutant and the modification will result in an emission increase and net emission increase of at least 75,000 tpy on a CO<sub>2e</sub> basis and 0 tpy on a mass basis.
- A stationary source, which is an existing major stationary source that emits or has the potential to emit 100,000 tpy CO<sub>2e</sub>, undertakes a modification that will result in an emission increase and net emission increase of at least 75,000 tpy on a CO<sub>2e</sub> basis and 0 tpy on a mass basis.

Recovered oil does not contain significant amounts of carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, per fluorocarbons, or sulfur hexafluoride. Therefore, the storage tank will not emit significant amounts of GHGs.

**Regulation XX: Regional Clean Air Incentive Market (RECLAIM)**

This storage tank is not subject to RECLAIM.

**Regulation XXX: Title V Permits**

The initial Title V permit for the refinery was sent to Chevron on September 29, 2009 with an effective date of October 12, 2009. The permit for this storage tank will be issued as a revision of the current Title V permit. Permit revisions are categorized into the following four types: *administrative, minor, de minimis significant and significant*. The review and distribution requirements for each revision type are summarized in the following table.



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

STATIONARY SOURCE COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES  
22

PAGE  
21

APPL. NO.  
552032

DATE  
08/20/13

PROCESSED  
BY R. Sanford

CHECKED  
BY

**Title V Permit Revisions: Review and Distribution Requirements**

Revision Type	Permit Review and Distribution Requirements		
	EPA Review (45-day)	Public Notice (30-day)	Send Final Permit to EPA
Administrative	No	No	Yes
Minor	Yes	No	Yes
De Minimis Significant	Yes	No	Yes
Significant	Yes	Yes	Yes

As defined in Rule 3000, a significant Title V permit revision is any revision that includes any of the following:

- (1.) relaxation of any monitoring, recordkeeping, or reporting requirement, term, or condition in the Title V permit;
- (2.) the addition of equipment or modification to existing equipment or processes that result in an emission increase of non-RECLAIM pollutants or hazardous air pollutants (HAP) in excess of any of the emission threshold levels in Table 1 of paragraph (b)(7) of this rule;
- (3.) cumulative emission increases of non-RECLAIM pollutants or hazardous air pollutants from de minimis significant permit revisions during the term of the permit, in excess of any of the emission threshold levels in Table 1 of paragraph (b)(7) of this rule.
- (4.) any modification at a RECLAIM facility that results in an emission increase of RECLAIM pollutants over the facility's starting Allocation plus the nontradeable Allocations;
- (5.) requests for a permit shield when such requests are made outside applications for initial permit or permit renewal issuance;
- (6.) any revision that requires or changes a case-by-case evaluation of: reasonably available control technology (RACT) pursuant to Title I of the federal Clean Air Act; or maximum achievable control technology (MACT) pursuant to 40 CFR Part 63, Subpart B;
- (7.) any revision that results in a violation of regulatory requirements;
- (8.) any revision that establishes or changes a permit condition that the facility assumes to avoid an applicable requirement;
- (9.) installation of new equipment subject to a New Source Performance Standard (NSPS) pursuant to 40 CFR Part 60, or a National Emission Standard for Hazardous Air Pollutants (NESHAP) pursuant to 40 CFR Part 61 or 40 CFR Part 63; or,
- (10.) modification or reconstruction of existing equipment, resulting in an emission increase subject to new or additional NSPS requirements pursuant to 40 CFR Part 60, or to new or additional NESHAP requirements pursuant to 40 CFR Part 61 or 40 CFR Part 63.

This Title V permit revision is a significant revision since reconstruction of the tank will subject it to the requirements of 40CFR60 Subpart Kb. Chevron has submitted Title V permit revision A/N 552033 for processing of this Title V permit significant revision, which will be sent to EPA for a 45-day review and published in a local newspaper for 30 days.



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

*STATIONARY SOURCE COMPLIANCE DIVISION*

APPLICATION PROCESSING AND CALCULATIONS

PAGES  
22

PAGE  
22

APPL. NO.  
552032

DATE  
08/20/13

PROCESSED  
BY R. Sanford

CHECKED  
BY

**RECOMMENDATION:**

Based on the foregoing evaluation, it is expected that the subject application will comply with all applicable District Rules and Regulations. It is recommended that, a Permit to Construct/Permit to Operate, Section D of the RECLAIM/Title V facility permit, be issued with the proposed changes.