

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING AND COMPLIANCE DIVISION**

REFINERY, ENERGY, RECLAIM ADMINISTRATION
ENGINEERING EVALUATION REPORT

Page 1 of 17
 Appl. number 449559 & 449560
 Processed by Hannea Cox
 Reviewed by B. Chandan
 Date 03/07/13

Modification (Permit to Operate) Evaluation

Facility Information

**PARAMOUNT PETROLEUM CORP.
 ID# 800183
 TITLE V: YES
 RECLAIM: NOX, SOX
 ZONE: COASTAL
 CYCLE: 1**

Mailing Address

**14700 DOWNEY AVENUE
 PARAMOUNT, CA 90723**

Equipment Address

(SAME AS ABOVE)

Contact Information

**KATHRYN GLEESON
 DIRECTOR OF ENVIRONMENTAL SERVICES
 (562) 748 – 4613
 KGLEESON@PPCLA.COM**

EQUIPMENT DESCRIPTION

SECTION D: Facility Permit, ID # 800183

Additions to the equipment description are noted in **bold** and underlined. Deletions are ~~struck through~~.

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emission * And Requirements	Conditions
Process 10: STORAGE TANKS					
System 2: INTERNAL FLOATING ROOF STORAGE TANKS					S13.1, S13.5
STORAGE TANK, INTERNAL FLOATING ROOF, NO T- 25001, <u>NAPHTHA</u> , *WITH 10-HP "LIGHTNING" MIXER, 25000 BBL; DIAMETER: 60 FT; HEIGHT: 50 FT WITH A/N: 404279 <u>449559</u> FLOATING ROOF, PONTOON, <u>WELDED SHELL</u> PRIMARY SEAL, CATEGORY <u>C A</u> OR BETTER PER RULE 219(e)(4), LIQUID-MOUNTED RESILIENT FOAM-FILLED <u>MECHANICAL SHOE</u> <u>SECONDARY SEAL, CATEGORY B, WIPER TYPE</u>	D339				<u>C1.XX</u> , C6.1, K67.2

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING AND COMPLIANCE DIVISION**

REFINERY, ENERGY, RECLAIM ADMINISTRATION
ENGINEERING EVALUATION REPORT

Page	2 of 17
Appl. number	449559 & 449560
Processed by	Hannea Cox
Reviewed by	B. Chandan
Date	03/07/13

<p>STORAGE TANK, INTERNAL FLOATING ROOF, NO. T- 25003, NAPHTHA, WITH 10 HP MIXER, 25000 BBL; DIAMETER: 60 FT; HEIGHT: 50 FT WITH A/N: 148113 449560</p> <p>FLOATING ROOF, <u>PONTOON</u>, <u>WELDED SHELL</u></p> <p>PRIMARY SEAL, CATEGORY A, METALLIC SHOE <u>MECHANICAL SHOE</u></p> <p>SECONDARY SEAL, CATEGORY B OR BETTER PER RULE 219(C)(4), WIPER TYPE</p>	D341				<u>CLYY</u> , C6.2, K67.2
---	------	--	--	--	---------------------------

**Note: The wording "With 10 HP "Lightnin Mixer" was removed during Title V cleanup.*

CONDITIONS

PROCESS CONDITION (None)

SYSTEM CONDITION

S13.1 All devices under this system are subject to the applicable requirements of the following rules or regulations:

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

[RULE 1149, 7-14-1995; RULE 463, 3-11-1994; RULE 463, 5-6-2005]

S13.5 All devices under this system are subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1178

[RULE 1178, 12-21-2001, RULE 1178, 4-7-2006]

DEVICE CONDITION

A. EMISSION LIMITS (None)

B. MATERIAL/FUEL TYPE LIMITS (None)

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING AND COMPLIANCE DIVISION**

REFINERY, ENERGY, RECLAIM ADMINISTRATION
ENGINEERING EVALUATION REPORT

Page	3 of 17
Appl. number	449559 & 449560
Processed by	Hannea Cox
Reviewed by	B. Chandan
Date	03/07/13

C. THROUGHPUT/OPERATING LIMITATION

C1.XX The operator shall limit the throughput to no more than 260,417 barrel(s) in any one 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 tank level. For the purpose of this condition, continuous recording is defined as once per hour.

The operator shall calculate the total one-way roof tank level movement at the end of each month. The total one-way tank level movement shall be determined for the calendar month and in unit of feet.

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 shall be repaired, throughput shall be determined by hourly tank level data averaged for the previous 30 days, prior to the discovery of the discrepancy.

In the event of 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 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 time the ATLG went out of service.

[Rule 1313(g), 12-7-1995]

[Devices subject to this condition: D339]

**Note: This condition is being added since the above tank has been modified and is now subject to NSR. Although the modification did not result in emission increases (based on the expected throughput), a monthly throughput limit will be applied according to Rule 1313(g)(2).*

C1.YY The operator shall limit the throughput to no more than 312,500 barrel(s) in any one 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 tank level. For the purpose of this condition, continuous recording is defined as once per hour.

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING AND COMPLIANCE DIVISION**

REFINERY, ENERGY, RECLAIM ADMINISTRATION
ENGINEERING EVALUATION REPORT

Page	4 of 17
Appl. number	449559 & 449560
Processed by	Hannea Cox
Reviewed by	B. Chandan
Date	03/07/13

The operator shall calculate the total one-way roof tank level movement at the end of each month. The total one-way tank level movement shall be determined for the calendar month and in unit of feet.

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 shall be repaired, throughput shall be determined by hourly tank level data averaged for the previous 30 days, prior to the discovery of the discrepancy.

In the event of 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 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 time the ATLG went out of service.

[Rule 1313(g), 12-7-1995]

[Devices subject to this condition: D341]

**Note: This condition is being added since the above tank has been modified and is now subject to NSR. Although the modification did not result in emission increases (based on the expected throughput), a monthly throughput limit will be applied according to Rule 1313(g)(2).*

- C.6.1. The operator shall use this equipment in such a manner that the hydrocarbon concentration being monitored, as indicated below, does not exceed 50 percent of the Lower Explosive Limit.

The owner shall use a lower explosive meter to monitor the hydrocarbon concentration.

[Rule 463, 3-11-1994; Rule 463, 5-6-2005]

[Devices subject to this condition: D263, D264, D321, D332, D336, D338, D339, D340, D344, D346, D347, D348, D351, D352, D353]

- C.6.2. The operator shall use this equipment in such a manner that the hydrocarbon concentration being monitored, as indicated below, does not exceed 30 percent of the Lower Explosive Limit.

The owner shall use a lower explosive meter to monitor the hydrocarbon concentration.

[Rule 463, 3-11-1994; Rule 463, 5-6-2005]

[Devices subject to this condition: D335, D337, D341, D342, D343, D345]

D. MONITORING/TESTING REQUIREMENTS (None)

E. EQUIPMENT OPERATION/CONSTRUCTION REQUIREMENTS (None)

H. APPLICABLE RULES (None)

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING AND COMPLIANCE DIVISION**

REFINERY, ENERGY, RECLAIM ADMINISTRATION
ENGINEERING EVALUATION REPORT

Page 5 of 17
 Appl. number 449559 & 449560
 Processed by Hannea Cox
 Reviewed by B. Chandan
 Date 03/07/13

K. RECORD KEEPING/REPORTING

K67.2 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):
 Throughput and vapor pressure of stored liquid.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition: D263, D264, D267, D268, D269, D270, D271, D272, D275, D276, D278, D279, D280, D281, D282, D283, D284, D286, D292, D294, D295, D296, D297, D298, D299, D300, D301, D302, D304, D305, D305, D306, D307, D309, D311, D312, D315, D316, D318, D319, D320, D321, D322, D323, D324, D325, D326, D327, D328, D329, D330, D334, D336, D338, D339, D340, D341, D342, D343, D344, D345, D346, D347, D348, D351, D353, D354, D355, D356, D357, D378]

BACKGROUND

Paramount Petroleum Corporation (Plant ID# 800183), located in Paramount CA, is a NOx and SOx RECLAIM facility and a Title V facility. Paramount Petroleum processes crude oil into marketable products including specialized road and roofing asphalts, diesel fuel, jet fuel, heating oil and gasoline components.

Paramount submitted the following applications listed, on the following page, in Table 1 due to modifications made to Storage Tanks #'s T-25001 (D339) and T-25003 (D341). Storage Tank T-25001 has been modified by replacing Category C primary seals with Category A mechanical shoes, adding secondary wiper type seal and removing the mixers. Storage Tank T-25003 has been modified by changing the Pan roof to a Pontoon roof, removing the mixers, and replacing the existing metallic primary seals with mechanical shoe seals.

Per Rule 219(c)(4) the upgrading of a primary seal on a floating roof tank does not require a permit if the type of seal is approved by the Executive Officer as being in compliance with Rule 463. However, Rule 463 does not require the addition of a secondary seal, therefore, Tank No. T-25001 is not Rule 219 exempt. Since the above tanks were modified by a adding secondary seal (Tank T-25001), changing the roof type (Tank 25003 only) and removing the mixers from both tanks, these applications will be treated as alteration/modification applications.

Table 1-Applications Submitted to AQMD

A/N	Equipment	Device ID	Type	Status	Date Submitted	Paramount's Requested Action	Previous A/N
449559	Storage Tank #25001 with an Internal Floating Roof	D339	50	21	10/13/05	<ul style="list-style-type: none"> Update equipment description Remove mixer from tank Replace seals 	104279
449560	Storage Tank #25003 with an Internal Floating Roof	D341	50	21	10/13/05	<ul style="list-style-type: none"> Update equipment description Remove mixer from tank Replace seals Changed Pan Roof to a Pontoon Roof 	148113

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING AND COMPLIANCE DIVISION**

REFINERY, ENERGY, RECLAIM ADMINISTRATION
ENGINEERING EVALUATION REPORT

Page 6 of 17
 Appl. number 449559 & 449560
 Processed by Hannea Cox
 Reviewed by B. Chandan
 Date 03/07/13

Table 2 below summarizes the relevant permitting history for storage tank number 25001 (AN 449559).

Table 2- Relevant Permit History for AN 449559

A/N	Date Submitted	Application		Permit		Description
		Status	Type	Status	Number	
A52687	12/1968	31	--	--	P29485	Application for original construction of storage tank number 25001
104279	12/16/82	31	40	--	--	Change of Ownership from Pacific Oasis to Paramount Petroleum Co.
419728*	09/03/03	21	50	--	--	Alteration application for seal upgrades (single seal to mechanical shoe primary seal and wiper secondary seal) and removal of mixer.
449559	10/13/05	21	50	--	--	Alteration application for seal upgrades (single seal to mechanical shoe primary seal and wiper secondary seal) and removal of mixer.

**Note that AN 419728 will be cancelled following issuance of a P/O for subject AN 449559.*

Table 3 below shows the relevant permitting history for storage tank number 25003 (AN 449560).

Table 3-Relevant Permit History for AN 449560.

A/N	Date Submitted	Application		Permit		Description
		Status	Type	Status	Number	
A30551	02/02/66				P-17657	This application was submitted for the original construction of storage tank number 25003.
104265	12/16/82	31	40	--	M32855	Change of ownership application.
148113	09/03/86	31	20	--	M54410	This permit to operate was issued because Paramount modified this tank with the addition of a secondary seal.
449560	10/13/05	21	50	--	--	This alteration application was submitted in order to remove the mixer, describe the floating roof as pontoon, welded shell, and primary seal upgrade (metallic shoe to mechanical shoe type).

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING AND COMPLIANCE DIVISION**

REFINERY, ENERGY, RECLAIM ADMINISTRATION
ENGINEERING EVALUATION REPORT

Page 7 of 17
Appl. number 449559 & 449560
Processed by Hannea Cox
Reviewed by B. Chandan
Date 03/07/13

FEE EVALUATION

Based on Rule 301 fee schedule for 2005-2006, the required fees for the above applications are as follows in Table 4 below:

Table 4- Fee Summary

A/N	Equipment	Type	Fee Schedule	Fee Required	50% Penalty	Total Fee Required	Total Fees Paid
449559	Storage Tank #25001 with an Internal Floating Roof	50	C	\$2,437.95	\$1,218.98	\$3,656.93	\$3,656.93
449560	Storage Tank #25003 with an Internal Floating Roof	50	C	\$2,437.95	\$1,218.98	\$3,656.93	\$3,656.93

COMPLIANCE REVIEW

AQMD's compliance records show that Paramount Petroleum Corporation (Paramount) has been cited with 23 Notices of Violations (NOVs) and 7 Notice to Comply (NTC) in the past two years. No NOVs have been used for any of the above tanks and all previous NOVs are currently in compliance. See Attachment 1 for compliance report.

PROCESS DESCRIPTION

Storage Tank #'s 25001 and 25003 are 25,000 barrel internal floating roof tanks equipped with a primary and secondary seal. Both tanks currently store light naphtha. Tank # 25001 and #25003 have pontoon welded shell floating roofs. The Category C, Wiper Type primary seals were replaced, according to Paramount, with Category A, Mechanical Shoes. Tank #25001 now has Category B, Wiper Type secondary seals, whereas, this type of seal already exists on Tank #25003. Paramount also requested to remove the 10 HP "Lightnin" Mixers from the equipment description of both storage tanks; these mixers no longer exist in the tanks. This change to the permit was made during the Title V cleanup process and the current Title V permit no longer lists the mixers. Please refer to memo Mr. Jimmy Crosby dated February 18, 2009 for Title V cleanup details. This memo is located in the "Correspondences Section" of master application no. 449559.

EMISSIONS

VOC emissions from the internal floating roof storage tank consist of evaporative losses from the rim seal system and deck fittings (standing storage loss) and any exposed liquid on the tank walls (withdrawal loss). In addition, these tanks are freely vented by circulation vents at the top of the fixed roof. The vents minimize

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING AND COMPLIANCE DIVISION**

REFINERY, ENERGY, RECLAIM ADMINISTRATION
ENGINEERING EVALUATION REPORT

Page	8 of 17
Appl. number	449559 & 449560
Processed by	Hannea Cox
Reviewed by	B. Chandan
Date	03/07/13

the possibility of organic vapor accumulation in the tank vapor space in concentrations approaching the flammable range.

Upgrading the seals on the above tanks and removing the mixers are not expected to result in an increase in emissions. When mixers are installed in a storage tank and mixing the stored material, the mixer becomes an emission source. When the mixer is removed, an emissions source is removed, resulting in an emissions decrease.

Per Rule 1306(c)(1), the emissions decreases will be calculated using the potential pre-modification and post-modification emissions using the current servicing commodity. Currently, both storage tanks store naphtha. 2003/2004 and 2004/2005 AER Form B6 were submitted for each tank which reported the annual emissions for each tank, respectively. However, these reports do not represent true pre-modification emissions because the modifications were already completed when the respective AER reports were submitted. Therefore, EPA Tanks 4.0.9d program was run using a liquid mounted primary seal (pre-modification) and the average of the AER reported throughputs for the years 2003/2004 and 2004/2005. Table 5 & 6 below shows reported AER throughputs and emissions.

Table 5- Submitted AER Data for Tank 25001

Tank Number (Device ID)	Reporting Year	Annual Reported Throughput (gallons)	Reported Calculated Emissions (lbs/yr)
25001 (D339)	2003/2004	48,846,590	2,806.68
25001 (D339)	2004/2005	17,597,200	1,883.50
<i>Average 2 year Throughput:</i>		33,221,895	

Table 6- Submitted AER Data for Tank 25003

Tank Number (Device ID)	Reporting Year	Annual Reported Throughput (gallons)	Reported Calculated Emissions (lbs/yr)
25003 (D341)	2003/2004	3,781,510	2,475.53
25003 (D341)	2004/2005	18,475,090	3,207.31
<i>Average 2 year Throughput:</i>		11,128,300	

The average throughput and vapor pressures were used in the Tank 4.0.9d program calculations which resulted in total annual pre-modified VOC emissions of 2,187.86 lbs/yr for storage tank 25001 and 3,432.99 lb/yr for storage tank 25003. Please note that the Tanks Programs rounds the amount of turnovers to the nearest whole number. This results in the average throughputs above being rounded up. For instance, the Tanks Program calculated an annual net throughput for Storage Tank 25001 to be 33,600,000 gallons/year and 11,550,000 gallons/year for Storage Tank 25003.

Using the same EPA Tanks program in conjunction with the same average throughputs and vapor pressures above and replacing the liquid mounted primary seal with a mechanical shoe primary seal and a rim mounted secondary seal (post-modification), the total annual VOC emissions decreased to 1,824.74 lbs/yr and

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING AND COMPLIANCE DIVISION**

REFINERY, ENERGY, RECLAIM ADMINISTRATION
ENGINEERING EVALUATION REPORT

Page	9 of 17
Appl. number	449559 & 449560
Processed by	Hanea Cox
Reviewed by	B. Chandan
Date	03/07/13

2,944.39 lbs/yr for tanks 25001 and 25003, respectively. This decrease was measured by comparing the VOC emissions servicing naphtha using the liquid mounted primary seal versus the mechanical shoe primary seal and a rim mounted secondary seal.

See the EPA Tanks 4.0 Reports, Attachments II and III, that demonstrate the decrease in emissions due to the above seal upgrades for this tank. Note: The EPA Tanks 4.0.9d program only has two options for secondary seals, shoe mounted or rim mounted. Paramount has a rim mounted wiper type secondary seal. By upgrading the liquid mounted resilient foam filled primary seal to a mechanical shoe with a wiper type secondary seal, Paramount has decreased their VOC emissions. Also, there is not an option in the EPA Tanks 4.0.9d program to calculate VOC emissions with or without a mixer installed on the storage tank; however, as indicated earlier, emissions are expected to decrease. See Table 7 below for a summary of emission decreases for both storage tanks.

Table 7 – Summary of Emission Decreases

STORAGE TANK NO.	VOC EMISSIONS					
	Pre-Modification (lb/yr)	Pre-Modification (lb/day)	Post-Modification (lb/yr)	Post-Modification (lb/day)	Emissions Decrease (lb/yr)	Emissions Decrease (lb/day)
25001 A/N 449559:	2,187.86	5.99	1,824.74	4.99	363.12	0.995
25003 A/N 449560:	3,432.99	9.41	2,944.39	8.06	488.6	1.35

Both of the above storage tanks were previously considered pre-NSR storage tanks, as a result of the modifications, the above tanks are now subject to NSR. As a result, commodities and throughputs will be listed in the equipment description. Refer to AQMD Tank Commodity Guideline, April 26, 2000. However, there are no emission increases, therefore BACT or Offsets are not required.

Device Conditions C1.XX and C1.YY will be added to D339 (Storage Tank 25001) and D341 (Storage Tank 25003). These conditions are throughput/operation limitations that will assure that each tank does not exceed pre-modified VOC emissions. Throughput limits were calculated using Tanks 4.0 program, post modification storage tank and tank commodity parameters and the maximum number of turnovers needed to NOT exceed the pre-modified VOC emissions. This means that Tank 25001 cannot exceed 260,417 barrels of Naphtha in any one month and Tank 25003 cannot exceed 312,500 barrels of Naphtha in any one month. Refer to Attachment 4 for TANKS Emission Report Calculations.

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING AND COMPLIANCE DIVISION**

REFINERY, ENERGY, RECLAIM ADMINISTRATION
ENGINEERING EVALUATION REPORT

Page	10 of 17
Appl. number	449559 & 449560
Processed by	Hannea Cox
Reviewed by	B. Chandan
Date	03/07/13

RULE EVALUATION

PART 1

SCAQMD REGULATIONS

Rule 212

Standards for Approving Permits and Issuing Public Notices-11/14/97

212(a)

These tanks are expected to operate without emitting air contaminants in violation of the provision of Division 26 of the State Health & Safety Code and District rules.

212(b)

Not applicable.

212(c)(1)

Both of these tanks are located within 1,000 feet of a school. However, the modifications made to the above permit units will not cause an increase in emissions.

212(c)(2)

A 30-day public notice is not required because the requested modifications will not result in any emission increases.

212(c)(3)

A 30-day public notice will not be required because the aforementioned modifications do not cause any increase in Toxic Air Contaminates.

212(d)

Not applicable.

212(e)

Not applicable.

212(f)

Not applicable.

212(g)

The requested modifications do not cause emission increases.

212(h)

Not applicable.

Rule 401

Visible Emissions 11/9/01

No visible emissions are expected under normal operating conditions. No NOV's or NC's have been issued for any of the above tanks; therefore, compliance with this rule is expected.

Rule 402

Nuisance-05/07/76

These storage tanks are not expected to cause nuisance complaints under normal operation. No nuisance complaints have been issued for these tanks, therefore, compliance with this rule is expected.

Rule 463

Organic Liquid Storage-11/04/11

This rule applies to any above-ground stationary storage tank with a capacity of 19,815 gallons or greater used to store organic liquid and any above-ground tank with a capacity between 251 gallons and 19,815 gallons used for storage of gasoline.

Both of the above ground tanks above are 25,000 barrel (1,050,000 gallons) storing naphtha and are subject to this rule.

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING AND COMPLIANCE DIVISION**

REFINERY, ENERGY, RECLAIM ADMINISTRATION
ENGINEERING EVALUATION REPORT

Page	11 of 17
Appl. number	449559 & 449560
Processed by	Hannea Cox
Reviewed by	B. Chandan
Date	03/07/13

(c) Tank Roof Requirements

This subpart prohibits the storage of organic liquid with a TVP > 0.5 psia in a tank with capacity greater than 39,630 gallons, or with a TVP > 1.5 psia in a tank with capacity greater than 19,815 gallons unless the tank is a pressure tank with working pressure sufficient to prevent vapor loss to atmosphere or has certain vapor control devices installed.

The above tanks are equipped with an internal floating roof type cover installed after June 1, 1984 and both have approved primary and secondary seals. All openings and fittings are fully gasketed and since the above storage tank's internal floating roof top was installed, modified, or replaced after June 1, 1984, this subpart requires that the concentration of organic vapor in the vapor space above the internal floating-type cover should not exceed 30 percent of its LEL. According to both tank's Rule 1178/463 2006 Compliance Report, the LEL was below 30%.

Continued compliance with this rule is expected. Refer to Rule 1178/463 Compliance Report located in the "Applicant Submitted Material" of each tank's application folder. Condition S13.1 assures compliance with this rule.

Rule 1149

Storage Tank Cleaning and Degassing-05/02/2008

Since Paramount uses the approved practice of liquid balancing to control VOC emissions whenever the tank is opened to the atmosphere to be cleaned and degassed, compliance is expected. Condition S13.1 has been added to assure compliance with this rule.

Rule 1178

Further Reductions of VOC Emissions from Storage Tanks at Petroleum Facilities- 04/07/06

The purpose of this rule is the further reduction of VOC emissions from storage tanks located at Petroleum Refineries. It applies to all aboveground tank with capacity greater than 19,815 gallons that are used to store organic liquids with a true vapor pressure greater than 0.1 psia that are located at any petroleum facility that emits more than 20 tons per year of VOC in any emission inventory year starting with 2000.

(d)(3) Internal Floating Roof Requirements

This subpart specifies that all openings be gasketed or covered and the concentration of organic vapor in the space above the internal floating-type cover should not exceed 30 percent of its LEL. According to the above tank's Rule 1178/463 December 9, 2006 Compliance Report, section E, all roof opening were covered and the LEL was 0%, well below 30% limit.

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING AND COMPLIANCE DIVISION**

**REFINERY, ENERGY, RECLAIM ADMINISTRATION
ENGINEERING EVALUATION REPORT**

Page 12 of 17
 Appl. number 449559 & 449560
 Processed by Hannea Cox
 Reviewed by B. Chandan
 Date 03/07/13

The following tables below show that the fittings and seals of storage tanks T-25001 and T-25003 meet the requirements of this rule.

Summary of Roof Opening/Fitting Controls and Seals for Tank T-25001

Roof Opening/Fitting or Seal Type	Roof Seal and Opening/Fitting Configuration		Applicable Rule 1178 Citation
	No.	Type	
Fixed roof support column & well	1	Sliding cover flexible fabric sleeve	1178(d)(3)(A)
Ladder well	1	Gasketed cover	1178(d)(3)(B)
Access Hatch	1	Cover: bolted & gasketed	1178(d)(3)(C)/1178(d)(1)(A)(i)
Automatic Gauge Float Well	1	Cover: bolted & gasketed	1178(d)(3)(C)/1178(d)(1)(A)(i)
Gauge Hatch/Sample Well	1	Weighted mechanical actuations; cover : gasketed	1178(d)(3)(C)/1178(d)(1)(A)(ii)
Roof Legs	14	Adjustable; gasketed or VOC impermeable sock cover	1178(d)(3)(C)/1178(d)(1)(A)(iii)
Rim Vent	0	Gasketed	1178(d)(3)(C)/1178(d)(1)(A)(iv)
Vacuum Breaker	1	Weighted mechanical actuation; cover: gasketed	1178(d)(3)(C)/1178(d)(1)(A)(v)
Roof Drain	0	Slotted membrane cover which covers at least 90% of the opening	1178(d)(3)(C)/1178(d)(1)(A)(vi)
Unslotted Guidepole Well & Guidepole	0	Gasketed sliding cover with flexible sleeve or wiper	1178(d)(3)(C)/1178(d)(1)(A)(vii)
	0	Gasketed cover at the end of the pole	1178(d)(3)(C)/1178(d)(1)(A)(vii)
Slotted Guidepole w/ Pole Float	1	Gasketed cover, a pole wiper, and a pole float wiper	1178(d)(3)(C)/1178(d)(1)(A)(x)

Summary of Roof Opening/Fitting Controls and Seals for Tank T-25003

Roof Opening/Fitting or Seal Type	Roof Seal and Opening/Fitting Configuration		Applicable Rule 1178 Citation
	No.	Type	
Fixed roof support column & well	1	Sliding cover flexible fabric sleeve	1178(d)(3)(A)
Ladder well	1	Gasketed cover	1178(d)(3)(B)
Access Hatch	1	Cover: bolted & gasketed	1178(d)(3)(C)/1178(d)(1)(A)(i)
Automatic Gauge Float Well	1	Cover: bolted & gasketed	1178(d)(3)(C)/1178(d)(1)(A)(i)
Gauge Hatch/Sample Well	1	Weighted mechanical actuations; cover : gasketed	1178(d)(3)(C)/1178(d)(1)(A)(ii)
Roof Legs	16	Adjustable; gasketed or VOC impermeable sock cover	1178(d)(3)(C)/1178(d)(1)(A)(iii)
Rim Vent	0	Gasketed	1178(d)(3)(C)/1178(d)(1)(A)(iv)
Vacuum Breaker	1	Weighted mechanical actuation; cover: gasketed	1178(d)(3)(C)/1178(d)(1)(A)(v)
Roof Drain	0	Slotted membrane cover which covers at least 90% of	1178(d)(3)(C)/1178(d)(1)(A)(vi)

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING AND COMPLIANCE DIVISION**

REFINERY, ENERGY, RECLAIM ADMINISTRATION
ENGINEERING EVALUATION REPORT

Page 13 of 17
 Appl. number 449559 & 449560
 Processed by Hannea Cox
 Reviewed by B. Chandan
 Date 03/07/13

		the opening	
Unslotted Guidepole Well & Guidepole	0	Gasketed sliding cover with flexible sleeve or wiper	1178(d)(3)(C)/1178(d)(1)(A)(vii)
	0	Gasketed cover at the end of the pole	1178(d)(3)(C)/1178(d)(1)(A)(vii)
Slotted Guidepole w/ Pole Float	1	Gasketed cover, a pole wiper, and a pole float wiper	1178(d)(3)(C)/1178(d)(1)(A)(x)

Also, Condition S13.5 assures compliance with the provisions for internal floating roof tanks. Refer to Rule 1178/463 2006 Compliance Report located in the “Applicant Submitted Material” of each tank’s application folder. Continued compliance is expected.

REGULATION XIII- New Source Review

Rule 1303

Requirements – 12/6/02

1303(a)

BACT- There are no increase in VOC emissions or any other non-attainment air contaminates due to the above modifications. Thus, BACT is not applicable.

1303(b)

Emission Increase- There are no increase in VOC emissions or any other non-attainment air contaminate, therefore, this subparagraph is not applicable. However, the above modifications result in emission decreases.

In order to process these applications, the NSR emissions had to be adjusted for both storage tanks. The updated emissions were verified by using Tanks 4.0. Please refer to the Emissions section of this evaluation for details on how those emissions were calculated. To facilitate this adjustment, the emissions from the previous Permits to Operate were updated in the NSR database by Senior Engineer Bhaskar Chandan.

Since there are emission decreases for these applications (as calculated pursuant to Rule 1306(c)(1)), the current emissions will be entered into the NSR database. A summary of NSR emissions are shown in Table 8 below.

Table 8 – NSR Emissions Summary

Storage Tank No.	Previous A/N	Updated NSR Data (lb/day)	Updated NSR Data (lb/hr)	NSR Update ?	New Emissions (lb/day)	New Emissions (lb/hr)
25001	104279	21.6	0.90	YES	4.99	0.21
25003	148113	28.33	1.18	YES	8.06	0.34

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING AND COMPLIANCE DIVISION**

REFINERY, ENERGY, RECLAIM ADMINISTRATION
ENGINEERING EVALUATION REPORT

Page	14 of 17
Appl. number	449559 & 449560
Processed by	Hanea Cox
Reviewed by	B. Chandan
Date	03/07/13

- 1303(b)(1) **Modeling-** Not applicable since there is no emission increases.
- 1303(b)(2)(A) **Offset-** Not applicable since there are no emission increases.
- 1303(b)(2)(B) **Short Term Credits-** Not applicable.
- 1303(b)(2)(C) **Specific VOC ERCs –** Not applicable.
- 1303(b)(3) **Sensitivity Zone Requirements –** Not applicable.
- 1303(b)(4) **Facility Compliance-** Paramount Petroleum is in compliance with all District rules.
- 1303(b)(5) **Major Polluting Facilities-** Paramount is a major polluting facility as defined in Rule 1302(s), however, this project is not a major modification as defined in Rule 1302(r)(1) since the increase in VOC emissions is not greater than one pound per day. Therefore, this subparagraph is not applicable.

Rule 1313

1313(g)(2)

Permits to Operate-12/7/1995

Emission Limitation Permit Conditions-Before the removal of the mixers the two tanks above were considered Pre-NSR storage tanks. Since Paramount physically modified the above storage tanks by removing the mixer and adding secondary seals, NSR is now triggered. Although BACT, Offsets, or Modeling are not required based on current throughput and commodity, Rule 1313(g)(2) applies because NSR is triggered. This rule states that every permit shall have monthly maximum emissions conditions. Therefore, new throughput limits were applied to the above tanks, Condition C1.XX and Condition C1.YY.

REGULATION XIV- Toxics and Other Non-Criteria Pollutants

Rule 1401

New Source Review of Toxic Air Contaminants – 09/10/10

This rule specifies limits for maximum individual cancer risk (MICR), cancer burden, and non-cancer acute and chronic hazard index (HI) for new permit units, relocations, or modifications to existing permits that emit toxic air contaminants (TACs).

Rule 1401 requirement level are as follows:

MICR, without T-BACT:	≤ 1 in 1 million (1.0×10^{-6})
MICR, with T-BACT:	≤ 1 in 1 million (1.0×10^{-6})
Cancer Burden:	≤ 0.5
Maximum Chronic Hazard Index:	≤ 1.0
Maximum Acute Hazard Index:	≤ 1.0

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING AND COMPLIANCE DIVISION**

REFINERY, ENERGY, RECLAIM ADMINISTRATION
ENGINEERING EVALUATION REPORT

Page	15 of 17
Appl. number	449559 & 449560
Processed by	Hannea Cox
Reviewed by	B. Chandan
Date	03/07/13

The above alterations to the storage tanks do not result in an increase of any Toxic Air Contaminates which would cause the MICR, Chronic Hazard Index, or Acute Hazard Index to increase. Thus, compliance with this rule is expected.

REGULATION XXX – TITLE V PERMITS

Rule 3001

Applicability

Paramount Petroleum Corp is a Title V facility and their Initial Title V Permit was issued effective on February 27, 2009.

Rule 3000

Definitions

This revision required more analysis than an administrative permit revision. Since Paramount modified the above tanks by removing the mixers and adding secondary seals and the modification did not result in any emission increases, new NSPS or NESHAPS, this revision qualifies as a “Minor Permit Revision”. The aforementioned applications meet the requirements set forth for a Minor Revision listed in 3000(b)(12)(A)(i)- 3000(b)(12)(A)(ix).

Rule 3003(j)

Application Requirements

This revision requires a 45-day EPA review, but this project is exempt from public participation requirements of Rule 3006(a) and 3006(b). SCAQMD will submit these applications to the EPA Administrator.

Part 2

STATE REGULATIONS

California Environmental Quality Act (CEQA)

Since there are no emission changes, CEQA is not required for this project.

Part 3

**40CFR Part 60
Subpart K**

FEDERAL REGULATIONS

Standards of Performance for Storage Vessels for Petroleum liquids for which construction, reconstruction, or modification commenced after June 11, 1973 and prior to May 19, 1978.

The above storage tanks in this evaluation did not have any construction, reconstruction, or modifications that fall within the specified time frame of this subpart. Therefore, Subpart K is not applicable to any of the above tanks.

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING AND COMPLIANCE DIVISION**

REFINERY, ENERGY, RECLAIM ADMINISTRATION
ENGINEERING EVALUATION REPORT

Page	16 of 17
Appl. number	449559 & 449560
Processed by	Hannea Cox
Reviewed by	B. Chandan
Date	03/07/13

**40CFR Part 60
Subpart Ka**

Standards of Performance for Storage Vessels for Petroleum liquids for which construction, reconstruction, or modification commenced after May 18, 1978 and prior to July 23, 1984.

Based on the District's knowledge, Storage Tank Nos. 25001 and 25003 did not undergo any construction, reconstruction or modification that resulted in an emissions increase during the specified timeframe of this Subpart. Therefore, this subpart is not applicable

**40CFR Part 60
Subpart Kb**

Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commences after July 23, 1984

Because these alterations will not result in emission increases of VOC (air pollutants to which a standard applies) or result in emissions of any pollutant not previously emitted, this rule would not apply to these applications. Nevertheless, these tanks already comply with the tank design/control requirements of this regulation.

**40CFR Part 60
Subpart UU**

Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture

§ 60.470 Applicability and designation of affected facility

This tank is not an asphalt tank as defined by section § 60.471. Therefore, this permit unit is not subject to the requirements specified by this subpart.

**40CFR Part 63
Subpart CC**

National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries

This NESHAP does not apply since this facility is not a "major" source as defined in §63.640(a)(1). The facility does not emit more than 10 tons annually of a listed HAP

or more than 25 tons annually of a combination of HAPs.

CONCLUSION

Based on the evaluation above, the above tanks are expected to comply with AQMD, State, and Federal Rules and Regulations. Permits to Operate are recommended for AN 449559 and 449560 along with the aforementioned modifications and conditions listed in the Conditions Section of this evaluation. AN 419728 should be canceled since this AN is a duplicate of AN 449559.

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING AND COMPLIANCE DIVISION**

REFINERY, ENERGY, RECLAIM ADMINISTRATION
ENGINEERING EVALUATION REPORT

Page	17 of 17
Appl. number	449559 & 449560
Processed by	Hannea Cox
Reviewed by	B. Chandan
Date	03/07/13

LIST OF ATTACHMENTS

1. SCAQMD NOC/NC Report
2. Tanks 4.09d Emissions Report Pre-Modification
3. Tanks 4.0.9d Emissions Report Post-Modification
4. Tanks 4.0.9d Emissions Report for Throughput
Limitations