Bay Area Air Quality Management District

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Permit Evaluation
and
Statement of Basis
for
Minor Revision of

MAJOR FACILITY REVIEW PERMIT

for

Phillips 66– San Francisco Refinery
Facility #A0016

Facility Address:
1380 San Pablo Avenue
Rodeo, CA 94572

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August 2013

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Application 22906

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Title V Statement of Basis

A. Background

This facility is subject to the Operating Permit requirements of Title V of the federal Clean Air Act, Part 70 of Title 40 of the Code of Federal Regulations (CFR), and BAAQMD Regulation 2, Rule 6, Major Facility Review because it is a major facility as defined by BAAQMD Regulation 2-6-212. It is a major facility because it has the "potential to emit," as defined by BAAQMD Regulation 2-6-218, of more than 100 tons per year of the following regulated air pollutants: NOx, CO, SO2, PM10, POC, and ammonia. It is also a major facility because it emits more than 100,000 tons of greenhouse gases.

Major Facility Operating permits (Title V permits) must meet specifications contained in 40 CFR Part 70 as contained in BAAQMD Regulation 2, Rule 6. The permits must contain all applicable requirements (as defined in BAAQMD Regulation 2-6-202), monitoring requirements, recordkeeping requirements, and reporting requirements. The permit holders must submit reports of all monitoring at least every six months and compliance certifications at least every year.

In the Bay Area, state and District requirements are also applicable requirements and are included in the permit. These requirements can be federally enforceable or non-federally enforceable. All applicable requirements are contained in Sections I through VI of the permit.

Each facility in the Bay Area is assigned a facility identifier that consists of a letter and a 4-digit number. This identifier is also considered to be the identifier for the permit. The identifier for this facility is A0016.

This facility received its initial Title V permit on December 1, 2003. The permit was reopened and re-issued on December 16, 2004, April 12, 2005, and November 20, 2006. Minor revisions were issued on April 12, 2005, January 5, 2006, March 2, 2006, October 15, 2007, May 23, 2011, and March 4, 2013. Significant revisions were issued on January 5, 2006, January 18, 2007, October 31, 2008, and June 18, 2009. The permit was renewed on September 1, 2011. Section X of the permit, Revision History, has a list of these revisions in chronological order.

This action makes minor revisions and an administrative amendment to the renewal Title V permit. This statement of basis will include all proposed changes to the permit in strikeout/underline format. This statement of basis addresses only the proposed changes to the permit. The statement of basis for the renewal permit issued on September 1, 2011, contains the basis for most of the rest of the permit. Additional issues were addressed in the documents for the revisions listed above.

The purpose of this action is to make the following administrative amendment and minor revisions to the Title V permit:

- Minor Revisions pursuant to Application 22906: Marine Terminal Project: Increase the throughput limits for crude oil and gas oil at the following sources:
    - S97, External Floating Roof Tank, 298K barrel capacity (Tank 100)

  - S261, External Floating Roof Tank, 104K barrel capacity (Tank 1010)
  - S334 External Floating Roof Tank, 180K barrel capacity (Tank 107)
  - S340 External Floating Roof Tank, 200K barrel capacity (Tank 108)
  - S425, Marine Loading Berth M1
  - S426, Marine Loading Berth M2
  - S439 External Floating Roof Tank, 161K barrel capacity (Tank 109)
- Minor Revision: The determination of the magnitude of a parameter is a minor revision.
  - The facility has determined, through source testing, that the temperature setting for A49, DAF Thermal Oxidizer, should be 1445^{o} F. A requirement for a parameter was initiated in Application 13424. The parameter will be inserted into condition 1440, part 7b and Table VII-Da. It is in Table II-B, Abatement Devices.
  - The facility has also determined, through source testing, that the temperature setting for A424, Tail-Gas Incinerator, which is a control device for S1010, Sulfur Recovery Unit, should be 1496^{o} F. A requirement for a parameter was initiated in Application 13424. The parameter is in Condition 23125, part 14, and Table VII-Ub. It will be inserted into Table II-B, Abatement Devices.
- Administrative Amendment: Part 4 of Condition 22964 in Section VI of the permit was inadvertently deleted in the minor revision that was issued on March 4, 2013. The condition pertains to source S301, which was not removed from the facility, as discussed in the letter that accompanied the issued permit. The condition is mentioned in Section IV-Ua.

The details of the revisions pursuant to Applications 22906 are found in the permit evaluations for NSR Applications 22904 and 24256, which are attached in Appendices B and C of this Statement of Basis and which form part of this Statement of Basis. The purpose of the project was to allow the facility to increase the number of ships that call at the marine terminal so that the facility could receive more crude oil by ship instead of by pipeline. BAAQMD Regulation 2, Rule 2, New Source Review, subjects ship emissions to the requirement for offsets. The facility used the shutdown of S14, Heater, to provide offsets for the emissions. Federal New Source Review does not. The project was also subject to the California Environmental Quality Act (CEQA), which is not a Federal requirement. The details of the CEQA review are in the Initial Study published on January 28, 2013. The Initial Study is available upon request.

The basis for these changes to S14, S261, S425, S426, and S464 is set out in the engineering evaluations for Application 22904 and 25256, which are attached in Appendices B and C, and form part of this statement of basis. The BACT discussion in Application 22604 mistakenly states that S97 is a gas oil tank and that S261 is a crude oil tank. The opposite is true, but the conclusion regarding the crude oil tank is still valid.

The basis for the temperature parameter is the requirement in Conditions 1440 and 23125.

B. Facility Description

This site is an oil refinery. For a complete description, see the Statement of Basis for Application 9296, issued on December 16, 2004.

This site, which is Site A0016, Site A0022, and Site B7419 are considered to be one facility. Site A0022, Phillips 66 Carbon Plant, is a plant that refines petroleum coke that comes from the refinery. It is owned by the same parent company and is adjacent to the refinery. B7419, Air Liquide, is a hydrogen plant that is not owned by Phillips 66, but that currently supplies all of its output to Phillips 66. Air Liquide is surrounded by the refinery.

C. Permit Content

The legal and factual basis for the permit revision follows. The permit sections are described in the order presented in the permit.

I. Standard Conditions

This section contains administrative requirements and conditions that apply to all facilities.

Changes to permit

There are no changes to Section I in this action.

II. Equipment

This section of the permit lists all permitted or significant sources. Each source is identified by an S and a number (e.g., S24).

Permitted sources are those sources that require a BAAQMD operating permit pursuant to BAAQMD Rule 2-1-302.

Significant sources are those sources that have a potential to emit of more than 2 tons of a "regulated air pollutant," as defined in BAAQMD Rule 2-6-222, per year or 400 pounds of a "hazardous air pollutant," as defined in BAAQMD Rule 2-6-210, per year.

All abatement (control) devices that control permitted or significant sources are listed. Each abatement device whose primary function is to reduce emissions is identified by an A and a number (e.g., A24). .

The equipment section is considered to be part of the facility description. It contains information that is necessary for applicability determinations, such as fuel types, contents or sizes of tanks, etc. This information is part of the factual basis of the permit.

Each of the permitted sources has previously been issued an authority to construct or a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. These authorities to construct and permits are issued in accordance with state law and the District's regulations. The capacities in the permitted sources table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-403.

The sources below are the subject of this application.

Table II A - Permitted Sources

Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. The capacities in this table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-301.

S-#	Description	Make or Type	Model	Capacity
14	U240, B-401 Heater (natural gas, refinery fuel gas) SHUTDOWN	~~Selas~~	~~process heater~~	~~556 MMbtu/hr~~
97	Tank 100	external floating roof	crude oil	298 thousand bbl
261	Tank 1010	external floating roof	naphtha, distillate oil	104 thousand bbl
334	Tank 107	external floating roof	crude oil	180 thousand bbl
340	Tank 108	external floating roof	crude oil	200 thousand bbl
425	Marine Loading Berth M1	2 permitted arms		Products: 25,000 bbl/day annual average for S425, S426 total; Crude oil or gas oil: ~~30,000~~51,182 bbl/day annual average for S425, S426 total
426	Marine Loading Berth M2	4 permitted arms		Products: 25,000 bbl/day annual average for S425, S426 total; Crude oil or gas oil: ~~30,000~~ 51,182 bbl/day annual average for S425, S426 total
439	Tank 109	external floating roof	Crude oil, gasoline, others	161 thousand bbl
~~464~~	~~U-240 Hydrogen Plant~~			~~70 MMscf/day~~
~~S464 is not a new source. It was originally permitted as part of S307. It is being given its own source number.~~				

Table II B – Abatement Devices

A#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
49	DAF (S1007) ~~Thermal~~Thermal Oxidizer (440,000 btu/hr, natural gas and approximately 200,000 btu/hr in organic vapors)	S1007, S324	BAAQMD Condition 1440, part 7a	1445 F	44 tons per year VOC reduction
424	Tail-Gas Incinerator (18 MMbtu/hr, natural gas)	A48	6-1-301	none	Ringelmann 1 for < 3 min/hr
424	Tail-Gas Incinerator (18 MMbtu/hr, natural gas)	A48	6-1-310	none	0.15 gr/dscf
424	Tail-Gas Incinerator (18 MMbtu/hr, natural gas)	A48	6-1-311	none	40 lb/hr
424	Tail-Gas Incinerator (19.5 MMbtu/hr, natural gas)	A48	6-1-330	none	0.08 grain/dscf exhaust concentration of SO3 and H2SO4, expressed as 100% H2SO4
424	Tail-Gas Incinerator (19.5 MMbtu/hr, natural gas)	A48	40 CFR 60.104(a)(2)(i)	CEM	SO2 < 250 ppm at 0% O2
424	Tail-Gas Incinerator (19.5 MMbtu/hr, natural gas)	A48	40 CFR 63.1568(a)(1)(i)	CEM	SO2 < 250 ppm at 0% O2
424	Tail-Gas Incinerator (19.5 MMbtu/hr, natural gas)	A48	BAAQMD Condition 23125, part 7a	CEM	SO2 < 50 ppmv @ 0% O2
424	Tail-Gas Incinerator (19.5 MMbtu/hr, natural gas)	A48	BAAQMD Condition 23125, part 11a	CEM	SO2 < 29.7 tons per year
424	Tail-Gas Incinerator (19.5 MMbtu/hr, natural gas)	A48	BAAQMD Condition 23125, part 7a	CEM	CO < 75 ppmvd @ 7% O2
424	Tail-Gas Incinerator (19.5 MMbtu/hr, natural gas)	A48	BAAQMD Condition 23125, part 11c	CEM	CO < 37.9 ton per year

Table II B – Abatement Devices

A#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
424	Tail-Gas Incinerator (19.5 MMbtu/hr, natural gas)	A48	BAAQMD Condition 23125, part 8b	1496°F~~Temperature to be determined~~	H2S < 2.5 ppmv @ 0% O2
424	Tail-Gas Incinerator (19.5 MMbtu/hr, natural gas)	A48	BAAQMD Condition 23125, part 9b	1496°F~~Temperature to be determined~~	H2S < 0.23 lb/hr
424	Tail-Gas Incinerator (19.5 MMbtu/hr, natural gas)	A48	BAAQMD Condition 23125, part 11h	1496°F~~Temperature to be determined~~	H2S < 0.975 tons per year
424	Tail-Gas Incinerator (19.5 MMbtu/hr, natural gas)	A48	BAAQMD Condition 23125, part 11i	1496°F~~Temperature to be determined~~	Total Reduced Sulfur < 10 tons per year
424	Tail-Gas Incinerator (19.5 MMbtu/hr, natural gas)	A48	BAAQMD Condition 23125, part 11j	1496°F~~Temperature to be determined~~	Reduced Sulfur Compounds < 10 tons per year

Changes to permit:

- Table II-A:
  - S14, Heater, has been shut down. The source will remain in the equipment table because it is subject to a requirement to remain shut down in Condition 1694, F.5.
  - S261, External Floating Roof Tank, is now allowed to hold crude oil as well as naphtha and distillate oil.
  - The capacity for S425 and S426, Marine Loading Berths, has been increased.
  - S464, Hydrogen Plant, has been shut down.
- Table II-B:
  - Temperature has been added as a parameter for A424, Tail-Gas Incinerator. This was a requirement of the permit issued pursuant to Application 13424.

III. Generally Applicable Requirements

This section of the permit lists requirements that generally apply to all sources at a facility including insignificant sources and portable equipment that may not require a District permit. If a generally applicable requirement applies specifically to a source that is permitted or significant, the standard will also appear in Section IV and the monitoring for that requirement will appear in Sections IV and VII of the permit. Parts of this section apply to all facilities (e.g., particulate,

architectural coating, odorous substance, and sandblasting standards). In addition, standards that apply to insignificant or unpermitted sources at a facility (e.g., refrigeration units that use more than 50 pounds of an ozone-depleting compound) are placed in this section.

Unpermitted sources are exempt from normal District permits pursuant to an exemption in BAAQMD Regulation 2, Rule 1. They may, however, be specifically described in a Title V permit if they are considered significant sources pursuant to the definition in BAAQMD Rule 2-6-239.

Changes to permit
There are no changes to Section III in this action.

IV. Source-Specific Applicable Requirements

This section of the permit lists the applicable requirements that apply to permitted or significant sources. These applicable requirements are contained in tables that pertain to one or more sources that have the same requirements. The order of the requirements is:

- District Rules
- SIP Rules (if any) are listed following the corresponding District rules. SIP rules are District rules that have been approved by EPA for inclusion in the California State Implementation Plan. *SIP* rules are "federally enforceable" and a "Y" (yes) indication will appear in the "Federally Enforceable" column. If the SIP rule is the current District rule, separate citation of the SIP rule is not necessary and the "Federally Enforceable" column will have a "Y" for "yes". If the SIP rule is not the current District rule, the SIP rule or the necessary portion of the SIP rule is cited separately after the District rule. The SIP portion will be federally enforceable; the non-SIP version will not be federally enforceable, unless EPA has approved it through another program.
- Other District requirements, such as the Manual of Procedures, as appropriate.
- Federal requirements (other than SIP provisions)
- BAAQMD permit conditions. The text of BAAQMD permit conditions is found in Section VI of the permit.
- Federal permit conditions. The text of Federal permit conditions, if any, is found in Section VI of the permit.

Section IV of the permit contains citations to all of the applicable requirements. The text of the requirements is found in the regulations, which are readily available on the District's or EPA's websites, or in the permit conditions, which are found in Section VI of the permit. All monitoring requirements are cited in Section IV. Section VII is a cross-reference between the limits and monitoring requirements. A discussion of monitoring is included in Section C.VII of this permit evaluation/statement of basis.

Changes to permit:
The changes to Section IV will be presented in the following order:

- Marine Terminals: S425, S426
- Tanks: S97, S261, S334, S340, S439
- Heaters: S9, S10, S12, S13, S14
- Sulfur Pit: S301

Marine Terminal

Changes were made to the permit condition 4336 for the marine terminals. No additional changes were required to the applicable requirements. Therefore, only an excerpt of the table showing the condition is shown. The condition will be discussed in Section C.VI of the statement of basis.

The New Source Performance Standard (NSPS) Subpart J requirement will not change. The increase in crude oil throughput does not cause an increase at the thermal oxidizer at the marine terminal because it controls emissions during unloading and this increase is only in loading from ships to tanks. Therefore, it is not a modification for the purpose of NSPS, Subpart Ja, which applies to modifications made after May 14, 2007.

Table IV - S
Source-specific Applicable Requirements
S425 – MARINE LOADING BERTH M1
S426 – MARINE LOADING BERTH M2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
	Excerpt of table		
NSPS 40 CFR 60 Subpart J	**Standards of Performance for Petroleum Refineries (9/21/06)**		
60.100	Applicability	Y	
60.104	Standards for Sulfur Oxides: Compliance Schedule	Y	
60.104(a)(1)	fuel gas H2S concentration limited to 230 mg/dscm (0.10 gr/dscf) except for gas burned as a result of process upset or gas burned at flares from relief valve leaks or other emergency malfunctions	Y	
60.105(e)(3)(ii)	Excess H2S emission definitions for 60.7(c)	Y	
60.106(a)	Test methods and procedures	Y	
60.106(e)(1)	Method 11 shall be used to verify compliance with 60.104(a)(1)	Y	
BAAQMD Condition 4336			
Part 1	A420 oxidizer temperature requirements [Basis: Cumulative Increase]	Y	
Part 2	Monitoring requirements [Basis: Cumulative Increase]	Y	
Part 3	Prohibition against loading without A420 in service [Basis: Cumulative Increase]	Y	
Part 4	Leak test requirement [Basis: Cumulative Increase]	Y	
Part 5	Maximum loading pressure relative to relief valve setpoint [Basis: Cumulative Increase]	Y	

Table IV - S
Source-specific Applicable Requirements
S425 – MARINE LOADING BERTH M1
S426 – MARINE LOADING BERTH M2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
Part 6a	Throughput limit for regulated materials [Basis: Cumulative Increase]	Y	
Part 6b	Maximum loading rate [Basis: Cumulative Increase]	Y	
Part 7	Limit on receipts of crude and gas oil via tanker (ship) or barge, limit on number of tankers or ships [Cumulative increase, 2-1-403, Offsets]	Y	
Part 8	Recordkeeping requirement [Basis: Cumulative Increase]	Y	
Part 9	Destruction efficiency [Basis: BACT]	Y	
Part 10	Alternative monitoring for compliance with 40 CFR 60.104(a)(1) H2S limit [40 CFR 60.13(i), BAAQMD Regulation 2-6-501]	Y	
Part 11	SO2 Offset calculation for 2013 [Basis: 2-2-303]	Y	
Part 12	Limit on number of ships in 2013 [Basis: 2-2-303]	Y	
Part 13	Contingency in case fuel sulfur does not decrease in 2014 [Basis: 2-2-303]	Y	
Part 14	Deadline for offsets [Basis: 2-4-410]	Y	

Tanks
NSPS, Subparts K, Ka, and Kb, NESHAPS
S261 was built in 1958 and is not subject to any of the NSPS for tanks in 40 CFR 60, Subparts K, Ka, or Kb.

S97 was built in 1969 and is not subject to any of the NSPS for tanks in 40 CFR 60, Subparts K, Ka, or Kb due to its age.

S334 is subject to 40 CFR 60, Subpart K, Standards of Performance for Storage Vessels for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978 (NSPS), and to 40 CFR 63, Subpart CC, National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries (NESHAPS). For tanks subject to 40 CFR 60, Subpart K and 40 CFR 63, Subpart CC, Section 60.640(n)(5) states that the NESHAPS supersedes the NSPS. Then, the NESHAPS subjects the tank to 40 CFR 63, Subpart G, National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater.

S340 is subject to 40 CFR 60, Subpart Ka, Standards of Performance for Storage Vessels for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984 (NSPS), and to 40 CFR 63, Subpart CC, National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries (NESHAPS). For tanks subject to 40 CFR 60, Subpart Ka and 40 CFR 63, Subpart CC, Section 60.640(n)(5) states that the NESHAPS supersedes the NSPS. Then, the NESHAPS

subjects the tank to 40 CFR 63, Subpart G, National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater.

S439 is subject to and will comply with the requirements of 40 CFR 60, Subpart Kb, Standards of Performance for Storage Vessels for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984. Tanks that are subject to NSPS Subpart Kb and NESHAPS Subpart CC are only subject to the requirements of NSPS Subpart Kb.

The proposed increase in emissions is not a modification for the purposes of NSPS Subparts K, Ka, and Kb. This determination is based on the October 17, 1997, letter from EPA's George Czerniak to Daniel R. Guido entitled "Storage Vessels for Volatile Organic Liquid (VOL), which states that an increase in throughput does not make a tank subject to the latest NSPS. George Czerniak states that the decision is based on 40 CFR 60.14, Modifications, section (e), which in turn states that "an increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility" is not a modification. Therefore, this increase in throughput does not make S97 and S261 subject to NSPS Subpart Kb.

Because S97 and S261 are not subject to NSPS, they are subject to 40 CFR 63, Subpart CC, National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries, which makes the tanks subject in turn to 40 CFR 63, Subpart G, National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater.

Tank S97 was subject to Condition 20989, which applies to "grandfathered" sources, which generally means a source that existed before 1979 and has never been subject to Regulation 2, Rule 2, New Source Review. S97 is now subject to Condition 25477, which has throughput limits and BACT requirements.

Table IV – BB.13
Source-Specific Applicable Requirements
MACT ZERO-GAP EXTERNAL FLOATING ROOF TANKS
S97 (TANK 100), S98, (TANK 101), S100 (TANK 103), S107 (TANK 150), S110 (TANK 155), S111 (TANK 156), S112 (TANK 157), S114 (TANK 159), S115 (TANK 160), S122 (TANK 167), S123 (TANK 168), S124 (TANK 169), S128 (TANK 174), S129 (TANK 180), S150 (TANK 241), S151 (TANK 242), S177 (TANK 287), S178 (TANK 288), S186 (TANK 298), S254 (TANK 1001), S255 (TANK 1002), S256 (TANK 1003), S259 (TANK 1006)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
	Excerpt of table		
BAAQMD Condition 20989, Part A	Throughput limits for sources ~~S97,~~ S100, S107, S110, S111, S112, S114, S115, S177, S254, S255, S256, S259 [Basis: 2-1-234.3]	N	
BAAQMD Condition 20989, Part A	Throughput limits for sources S129, S150, S151, S178 [Basis: 2-1-234.3]	Y	
BAAQMD Condition 22478	Applies to S123, S124, S186		
Part 1	Vapor pressure limit for S123 [Basis: cumulative increase]	Y	
Part 2	Vapor pressure limit for S124 [Basis: cumulative increase]	Y	
Part 3	Emissions limit for S186 [Basis: cumulative increase]	Y	
Part 5	Throughput limit for S123 [Basis: cumulative increase]	Y	
Part 6	Throughput limit for S124 [Basis: cumulative increase]		
Part 8	BACT equipment requirements for S123, S124, S186, and S334 [Basis: BACT, cumulative increase]	Y	
Part 9	Emission calculations S186 [Basis: cumulative increase]	Y	
BAAQMD Condition 22963	Applies to S98. S122, S128		
Part 1a	Vapor pressure limit for S98 for October through March [Basis: cumulative increase]	Y	
Part 1b	Vapor pressure limit for S98 for April through September [Basis: cumulative increase]		
Part 1d	Vapor pressure limit for S122 [Basis: cumulative increase]		
Part 1e	Vapor pressure limit for S128 [Basis: cumulative increase]		
Part 2a	Throughput limit for S98 for October through March [Basis: cumulative increase]		
Part 2b	Throughput limit for S98 for April through September [Basis: cumulative increase]		
Part 2d	Annual throughput limit for S122 [Basis: cumulative increase]		
Part 2e	Annual throughput limit for S128 [Basis: cumulative increase]		
Part 4	Seal, penetration, guide pole, and roof leg requirements [Basis: BACT, cumulative increase]		
BAAQMD Condition 25477	Applies to S97		
Part 1	Crude oil throughput, limit on content of tank [Basis: BACT, cumulative increase]	Y	
Part 2	Equipment requirements [Basis: BACT, cumulative increase]	Y	
Part 3	Recordkeeping [Basis: cumulative increase]	Y	

Table IV – BB.18
Source-Specific Applicable Requirements
MACT EXTERNAL FLOATING ROOF TANKS W/O ZERO-GAP SEALS
S113 (TANK 158), S125 (TANK 170),
S183 (TANK 295), S184 (TANK 296), S261 (TANK 1010)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
	Excerpt of table		
BAAQMD Condition 20989, Part A	Throughput limits for sources S113, S125~~, S261~~ [Basis: 2-1-234.3]	N	
BAAQMD Condition 20989, Part A	Throughput limits for sources S183, S184 [Basis: 2-1-234.3]	Y	
BAAAQMD Condition 25478	Applies to S261		
Part 1	Throughput limit [Basis: Cumulative Increase]	Y	
Part 2	Equipment requirements [Basis: Cumulative Increase]	Y	
Part 3	Records [Basis: Cumulative Increase]	Y	

Changes were made to permit condition 22478 for S334, Tank. No additional changes were required to the applicable requirements. Therefore, only an excerpt of the table showing the condition is shown. The condition will be discussed in Section C.VI of the statement of basis.

Table IV – BB.14
Source-Specific Applicable Requirements
NSPS K AND NSPS KA ZERO-GAP EXTERNAL FLOATING ROOF TANKS
NSPS K – S334 (TANK 107),
NSPS KA – S341 (TANK 208), S342 (TANK 209), S343 (TANK 210)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
	Excerpt of table		
BAAQMD Condition 22478	**Applies to S334**		
Part 4	~~Vapor pressure limit~~Contents of tank limited to crude oil [Basis: BACT, cumulative increase]	Y	
Part 7	Throughput limit for S334 [Basis: cumulative increase]	Y	
Part 8b	BACT equipment requirements for ~~S123, S124, S186, and~~ S334 [Basis: BACT, cumulative increase]	Y	

A correction has been made to the title of this table. The tank does have zero-gap seals.

Tank S340 was subject to Condition 20989, which applies to "grandfathered" sources, which generally means a source that existed before 1979 and has never been subject to Regulation 2, Rule 2, New Source Review. S340 is now subject to Condition 25223, which has throughput limits and BACT requirements.

Table IV – BB.17
Source-Specific Applicable Requirements
NSPS KA EXTERNAL FLOATING ROOF TANK ~~W/O~~WITH ZERO-GAP SEALS
S340 (TANK 108)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
	Excerpt of table		
~~**BAAQMD Condition 20989, Part A**~~	~~Throughput limits for sources S340 [Basis: 2-1-234.3]~~	~~Y~~	
BAAQMD Condition 25223			
Part 1	Throughput limit [cumulative increase]	Y	
Part 2	Crude oil or petroleum liquids under 3.0 psia [BACT]	Y	
Part 2	Equipment requirements [BACT, cumulative increase]	Y	
Part 3	Records [cumulative increase]	Y	

Changes were made to the permit condition 12125 for S439, Tank. No additional changes were required to the applicable requirements. Therefore, only an excerpt of the table showing the condition is shown. The condition will be discussed in Section C.VI of the statement of basis.

Table IV – BB.7
Source-Specific Applicable Requirements
NSPS KB ZERO GAP EXTERNAL FLOATING ROOF TANKS
S439 (TANK 109), S440 (TANK 110), S442 (TANK 112), S444 (TANK 243),

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
	Excerpt of table		
BAAQMD Condition 12124	**APPLICABLE TO S439**		
Part 1	Crude oil or petroleum liquids with a vapor pressure of 3.0 psia or less [BACT]	Y	
Part ~~2~~1	Annual throughput limit [Basis: Cumulative Increase]	Y	
Part ~~2~~3	Equipment requirements ~~for tank openings~~ [Basis: BACT, Cumulative Increase]	Y	
Part ~~3~~4	Monthly throughput records [Basis: Cumulative Increase]	Y	

Condition 22478 no longer applies to S334, Tank. Therefore, the description of part 8 of Condition 22478 in Table BB.13 was amended.

Table IV – BB.13
Source-Specific Applicable Requirements
MACT ZERO-GAP EXTERNAL FLOATING ROOF TANKS
S97 (TANK 100), S98, (TANK 101), S100 (TANK 103), S107 (TANK 150), S110 (TANK 155), S111 (TANK 156), S112 (TANK 157), S114 (TANK 159), S115 (TANK 160), S122 (TANK 167), S123 (TANK 168), S124 (TANK 169), S128 (TANK 174), S129 (TANK 180), S150 (TANK 241), S151 (TANK 242), S177 (TANK 287), S178 (TANK 288), S186 (TANK 298), S254 (TANK 1001), S255 (TANK 1002), S256 (TANK 1003), S259 (TANK 1006)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
	Excerpt of table		
BAAQMD Condition 22478	Applies to S123, S124, S186		
Part 1	Vapor pressure limit for S123 [Basis: cumulative increase]	Y	
Part 2	Vapor pressure limit for S124 [Basis: cumulative increase]	Y	
Part 3	Emissions limit for S186 [Basis: cumulative increase]	Y	
Part 5	Throughput limit for S123 [Basis: cumulative increase]	Y	
Part 6	Throughput limit for S124 [Basis: cumulative increase]		
Part 8	BACT equipment requirements for S123, S124, and S186~~, and S334~~ [Basis: BACT, cumulative increase]	Y	
Part 9	Emission calculations S186 [Basis: cumulative increase]	Y	

All requirements for S14, Heater, were deleted, except for the requirement to shut down.

Table IV – A.12
Source-specific Applicable Requirements
S14 – UNIT 240, B-401 HEATER

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
~~**BAAQMD Regulation 1**~~	~~**General Provisions and Definitions (7/09/08)**~~		
~~1-521~~	~~Monitoring May Be Required~~	~~Y~~	
~~1-522~~	~~Continuous Emission Monitoring and Recordkeeping Procedures~~		
~~1-522.4~~	~~- reporting of inoperative CEMs~~	~~Y~~	
~~1-522.5~~	~~- CEM calibration requirements~~	~~Y~~	
~~1-522.6~~	~~- CEM accuracy requirements~~	~~Y~~	
~~1-522.7~~	~~- emission limit exceedance reporting requirements~~	~~N~~	
~~1-522.8~~	~~- monitoring data submittal requirements~~	~~Y~~	

Table IV – A.12
Source-specific Applicable Requirements
S14 – UNIT 240, B-401 HEATER

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
1-522.9	- recordkeeping requirements	Y	
1-522.10	- Regulation 1-521 monitors shall meet requirements specified by - District	Y	
1-602	Area and Continuous Monitoring Requirements	N	
SIP Regulation 1	**PROVISIONS NO LONGER IN CURRENT RULE General Provisions and Definitions (6/28/99)**		
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y – note 1	
1-522.7	- emission limit exceedance reporting requirements	Y – note 1	
BAAQMD Regulation 6, Rule 1	**Particulate Matter, General Requirements (12/05/07)**		
6-1-301	Ringelmann #1 Limitation	N	
6-1-304	Tube Cleaning	N	
6-1-305	Visible Particles	N	
6-1-310.3	Particulate Weight Limitation; Heat Transfer Operation	N	
SIP Regulation 6	**Particulate Matter and Visible Emissions (9/4/98)**		
6-301	Ringelmann No. 1 Limitation	Y	
6-304	Tube Cleaning	Y	
6-305	Visible Particles	Y	
6-310.3	Particulate Weight Limitation; Heat Transfer Operation	Y	
BAAQMD Regulation 9, Rule 10	**Inorganic Gaseous Pollutants – Nitrogen Oxides and Carbon Monoxide from Boilers, Steam Generators, and Process Heaters in Petroleum Refineries (7/17/02)**		
9-10-301	Emission Limit for Facility, NOx: 0.033 lb NOx/Mmbtu	N	
9-10-301.1	...Start-up/Shutdown Contribution	N	
9-10-301.2	...Out-of-Service Units Contribution	N	
9-10-301.3	...Test-firing on Non-gaseous fuel Contribution	N	
9-10-303	Federal Facility-wide NOx emission rate limit	Y	
9-10-305	CO emission limit	N	
9-10-502	Monitoring	Y	
9-10-502.1	CEMS for NOx, CO, and O2 or equivalent monitoring	Y	
9-10-502.2	Fuel flowmeters	Y	
9-10-504	Recordkeeping	N	
9-10-504.1	- Records	N	
9-10-505	Reporting	N	
9-10-601	Determination of NOx	N	

Table IV – A.12
Source-specific Applicable Requirements
S14 – UNIT 240, B-401 HEATER

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
9-10-602	Determination of CO and Stack Gas O2	N	
9-10-603	Compliance Determination	Y	
SIP Regulation 9, Rule 10	**Inorganic Gaseous Pollutants – Nitrogen Oxides and Carbon Monoxide from Boilers, Steam Generators, and Process Heaters in Petroleum Refineries (4/2/08)**		
9-10-504	Recordkeeping	Y	
9-10-504.1	– Records	Y	
9-10-505	Reporting	Y	
9-10-601	Determination of NOx	Y	
BAAQMD Manual of Procedures, Volume V	**Continuous Emission Monitoring Policy and Procedures (1/20/82)**	Y	
40 CFR 60, Subpart A	**General Provisions (1/18/08)**		
60.7(b)	Records	Y	
60.7(c)	Notification and recordkeeping for continuous monitoring	Y	
60.7(d)	Summary reports	Y	
60.7(e)	Reduction of frequency of summary reports	Y	
60.7(f)	Records	Y	
60.7(g)	Alternative Notification	Y	
60.7(h)	Specific Provisions	Y	
60.8	Performance Tests	Y	
60.11	Compliance with Standards and Maintenance Requirements	Y	
60.11(a)	Compliance determined by performance tests	Y	
60.11(d)	Control devices operated using good air pollution control practice	Y	
60.13	Monitoring requirements	Y	
60.13(a)	Continuous monitoring systems subject to Appendix B, and Appendix F, (if used to demonstrate compliance with continuous emission limits), of Part 60	Y	
60.13(b)	Continuous monitoring systems and devices operational prior to performance tests required by 60.8	Y	
60.13(d)(1)	Continuous monitoring system zero and span calibration requirements	Y	
60.13(e)	Continuous monitoring system minimum frequency of operation	Y	
60.13(e)(2)	Continuous monitoring system minimum frequency of operation for – non-opacity measuring devices	Y	
60.13(f)	Continuous monitoring system installation location requirement	Y	

Table IV – A.12
Source-specific Applicable Requirements
S14 – UNIT 240, B-401 HEATER

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
~~**NSPS 40 CFR 60, Subpart J**~~	~~**Standards of Performance for Petroleum Refineries (9/21/06)**~~		
~~60.100~~	~~Applicability~~	~~Y~~	
~~60.104~~	~~Standards for Sulfur Oxides: Compliance Schedule~~	~~Y~~	
~~60.104(a)(1)~~	~~fuel gas H2S concentration limited to 230 mg/dscm (0.10 gr/dscf) except for gas burned as a result of process upset or gas burned at flares from relief valve leaks or other emergency malfunctions~~	~~Y~~	
~~60.105~~	~~Monitoring of Emissions and Operations~~	~~Y~~	
~~60.105(a)(4)~~	~~monitoring requirement for H2S (dry basis) in fuel gas prior to combustion (in lieu of separate combustion device exhaust SO2 monitors as required by 60.105(a)(3))~~	~~Y~~	
~~60.105(e)(3)(ii)~~	~~Excess H2S emission definitions for 60.7(c)~~	~~Y~~	
~~60.106(a)~~	~~Test methods and procedures~~	~~Y~~	
~~60.106(e)(1)~~	~~Method 11 shall be used to verify compliance with 60.104(a)(1)~~	~~Y~~	
~~**NSPS 40 CFR 60, Appendix A**~~	~~**Appendix A to Part 60 Test Methods**~~	~~Y~~	
~~**NSPS 40 CFR 60 Appendix B**~~	~~**Performance Specifications**~~		
~~Performance Specification 7~~	~~H2S continuous emission monitoring systems~~	~~Y~~	
BAAQMD Condition 1694			
~~Part A.1b~~	~~Heat ratings, firing limits [Basis: Regulation 2-1-301]~~	~~Y~~	
~~Part A.2a~~	~~Fuel restrictions [Basis: Regulation 2, Rule 1]~~	~~Y~~	
~~Part A.3a~~	~~TRS testing requirement [Basis: SO2 Bubble]~~	~~Y~~	
~~Part A.3b~~	~~TRS reporting requirements [Basis: SO2 Bubble]~~	~~Y~~	
~~Part A.4~~	~~SO2 emission limit [Basis: SO2 Bubble]~~	~~Y~~	
~~Part A.5~~	~~Records [Basis: Regulation 2, Rule 1; SO2 Bubble; Regulation 2-6-409.2]~~	~~Y~~	
~~Part F.1~~	~~Annual fuel firing limit at S9, S10, S11, S12, S13, S14 [Basis: Cumulative Increase]~~	~~Y~~	
~~Part F.3~~	~~Monthly fuel firing records [Basis: Cumulative Increase]~~	~~Y~~	

Table IV – A.12
Source-specific Applicable Requirements
S14 – UNIT 240, B-401 HEATER

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
Part F.5	Requirement for shutdown [Basis: 2-2-302,2-2-303]	Y	
~~**BAAQMD Condition 21235**~~			
~~Part 1~~	~~Sources subject to Regulation 9-10-301 and 9-10-305 [Basis: Regulation 9-10-301, 9-10-305]~~	~~Y~~	
~~Part 2~~	~~O2 CEM requirement [Basis: Regulation 9-10-502]~~	~~Y~~	
~~Part 8~~	~~CO source test requirement for sources with NOx CEMs [Basis: Regulation 9-10-502]~~	~~Y~~	
~~Part 9~~	~~CO, O2 CEM requirement [Basis: Regulation 9-10-502, 1-522]~~	~~Y~~	
~~Part 11~~	~~Compliance demonstration with Alternative Compliance Plan [Basis: Regulation 2-9-303, 9-10-301]~~	~~N~~	
~~Part 12~~	~~Quarterly report showing amount of IERC's used during previous quarter, IERC's used during current ACP period, projection of IERC's required and certification that the facility possesses IERC's equal to the amount projected [Basis: Regulation 2-9-502.3]~~	~~N~~	
~~Part 13~~	~~Annual reconciliation report and surrendering of banking certificate(s) [Basis: Regulation 2-9-502.4]~~	~~N~~	
~~Part 14~~	~~ACP renewal request [Basis: Regulation 2-9-502.2]~~	~~N~~	
~~Part 15~~	~~Recordkeeping requirement [Basis: Regulation 2-9-502.2]~~	~~N~~	

~~1 This section has been removed from BAAQMD Regulations because it has been superseded. Nevertheless, the source must comply with this regulation until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.~~

The citation for Condition 1694, part F.1 has been amended in Tables IV-A.7, IV-A.8, IV-A.10, and IV-A.11 because S14 has been shut down.

Tables IV – A.7, A.8, A.10, A.11
Source-specific Applicable Requirements
S9, S10, S12, S13, HEATERS

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
	Excerpt of tables A.7, A.8, A.10, A.11		
BAAQMD Condition 1694			
Part F.1	Annual fuel firing limit at S9, S10, S11, S12, S13~~, S14~~ [Basis: Cumulative Increase]	Y	

V. Schedule of Compliance

A schedule of compliance is required in all Title V permits pursuant to BAAQMD Regulation 2-6-409.10 which provides that a major facility review permit shall contain the following information and provisions:

"409.10 A schedule of compliance containing the following elements:
10.1 A statement that the facility shall continue to comply with all applicable requirements with which it is currently in compliance;
10.2 A statement that the facility shall meet all applicable requirements on a timely basis as requirements become effective during the permit term; and
10.3 If the facility is out of compliance with an applicable requirement at the time of issuance, revision, or reopening, the schedule of compliance shall contain a plan by which the facility will achieve compliance. The plan shall contain deadlines for each item in the plan. The schedule of compliance shall also contain a requirement for submission of progress reports by the facility at least every six months. The progress reports shall contain the dates by which each item in the plan was achieved and an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted."

The District is proposing no changes to the schedule of compliance section in this action.

VI. Permit Conditions

The Major Facility Review permit contains conditions that are derived from previously issued District Authorities to Construct (A/C) or Permits to Operate (P/O). Permit conditions may also be imposed or revised as part of the annual review of the facility by the District pursuant to California Health and Safety Code (H&SC) § 42301(e), through a variance pursuant to H&SC § 42350 et seq., an order of abatement pursuant to H&SC § 42450 et seq., or as an administrative

revision initiated by District staff. After issuance of the Title V permit, permit conditions will be revised using the procedures in Regulation 2, Rule 6, Major Facility Review.

When necessary to meet Title V requirements, additional monitoring, recordkeeping, or reporting has been added to the permit.

Each permit condition is identified with a unique numerical identifier, up to five digits.

All changes to existing permit conditions that are proposed in this action are clearly shown in "strike-out/underline" format in the proposed permit. When the permit is issued, all 'strike-out" language will be deleted and all "underline" language will be retained, subject to consideration of comments received.

Changes to permit:
The changes to the permit conditions will be presented in the following order:

Marine Terminal

- Condition 4336 for Marine Terminals, S425, S426

Tanks

- Condition 12124 for Tank S439
- Condition 22478 for Tank S334
- Condition 25223 for Tank S340
- Condition 25477 for Tank S97
- Condition 25478 for Tank S261
- Condition 20989 for Tanks S97, S261, and S340

S14, Heater

- Conditions 1694 and 21235 for S14, Heater

A49, Thermal Oxidizer

- The operating temperature of 1445^{o}F has been added to Condition 1440, part 7.b.ii.

S301, Sulfur Pit

- Condition 22964 for S301

Part 7 of Condition 4336 was amended to allow an increase of 20,500 barrels of crude oil loaded per day on an annual average basis. The emission increase for the loading is small and occurs at the tanks. The major source of the emissions is the ship traffic. To limit the ship emissions, a limit was also placed on the number of tankers or ships that deliver crude oil or gas oil.

The facility calculated the SO2 increase using the reduction in fuel sulfur from 1% to 0.1% expected in 2014 due to the IMO, ARB, and EPA regulations, and did not provide additional offsets for an increase in 2013. Therefore, the facility accepted the conditions in Parts 11

through 13 that assume that the facility will not increase the number of ships until 2014. The conditions contain a contingency in case the fuel sulfur rule is stayed or delayed.

Part 14 required the facility to provide SO2 offsets within 90 days of issuance of the Change in Conditions. Since the offsets have been provided, this part has been deleted.

CONDITION 4336
Conditions for S425, S426**,** Marine Loading Berths

1. For each loading event of "regulated organic liquid", A420 shall be operated with a temperature of at least 1300 degrees F during the first 15 minutes of the loading operation. After the initial 15 minutes of loading, the A420 temperature shall be at least 1400 degrees F. [Cumulative Increase]

2. Instruments shall be installed and maintained to monitor and record the following:

   a. Static pressure developed in the marine tank vessel
   b. A420 temperature.
   c. Hydrocarbons and flow to determine mass emissions or a concentration measurement alone if it is demonstrated to the satisfaction of the APCO that concentration alone allows verification of compliance, or
   d. Any other device that verifies compliance, with prior approval from the APCO.

   [Cumulative Increase]

3. A "regulated organic liquid" shall not be loaded from this facility into a marine tank vessel within the District whenever A420 is not fully operational. A420 must be maintained to be leak free, gas tight, and in good working order. For the purposes of this condition, "operational" shall mean the system is achieving the reductions required by Regulation 8, Rule 44; "regulated organic liquids" include gasoline, gasoline blendstocks, aviation gasoline and JP-4 aviation fuel and crude oil. [Cumulative Increase]

4. A leak test shall be conducted on all vessels loading under positive pressure prior to loading more than 20% of the cargo. The leak test shall include all vessel relief valves, hatch cover, butterworth plates, gauging connections, and any other potential leak points.

   [Cumulative Increase]

5. Loading pressure shall not exceed 80% of the lowest relief valve set pressure of the vessel being loaded. [Cumulative Increase]

6a. No more than 25,000 barrels per day of gasoline, naphtha and C5/C6 shall be shipped across the wharf on an annual average basis. [Cumulative Increase]

   1. Deleted Application 13690

   2. When barges are used to lighter crude oil, the volume of oil lightered during any reporting period shall be multiplied by a factor of 0.42 and included in the shipping

totals to determine compliance with the throughput limits. The vessel Exxon Galveston is considered a ship for the purposes of this condition.

6b. The maximum loading rate at any time at both S425 and S426 shall not exceed 20,000 barrels per hour to prevent overloading the A420 oxidizer. [Cumulative Increase]

7. The owner/operator shall not receive more than ~~30,682~~51,182 bbl per day of crude oil and/or gas oil delivered by tanker, barge or ship at the Marine Terminal (S425, S426) on a 12 month rolling average basis. In addition, no more than 59 tankers or ships shall deliver crude and/or gas oil to the Marine Terminal in any 12 consecutive months. (Cumulative increase, 2-1-403, Offsets)

8. All throughput records required to verify compliance with Parts 6 and 7, including hourly loading rate records (total for S425, S426), monthly crude oil receipt records, and maintenance records required for A420, which are subject to Regulation 8, Rule 44, shall be kept on site for at least 5 years and made available to the District upon request. [Cumulative Increase]

9. The destruction efficiency of the A420 control system shall be at least 98.5% by weight over each loading event for gasoline, gasoline blending stocks, aviation gas, aviation fuel (JP-4 type), and crude oil. [BACT]

10. The purpose of part 10 is to implement an alternative monitoring plan to assure compliance with the H2S limit in 40 CFR 60.104(a)(1) at A420, Thermal Oxidizer. This part will apply whenever A420 is used to comply with BAAQMD Regulation 8, Rule 44, and whenever A420 is used to burn fuel gas as defined by 40 CFR 60.101(d). To ensure that the thermal oxidizer is not used to burn fuel gas that is high in H2S, the following activities are not allowed at the terminal: ballasting, cleaning, inerting, purging, and gas freeing. The owner/operator shall perform the following monitoring: One detection tube sampling shall be conducted on the vapors collected during the event for each marine vessel tank that is affected. The detector tube ranges shall be 0-10/0-100 ppm (N=10/1) unless the H2S level is above 100 ppm. If the H2S level is above 100 ppm, the owner/operator shall use a detection tube with a 0-500 ppm range. The owner/operator shall use ASTM Method 4913-00, Standard Practice for Determining Concentration of Hydrogen Sulfide by Reading Length of Stain, Visual Chemical Detectors. The owner/operator shall maintain records of the H2S detection tube test data for five years from the date of the record. In addition, the owner/operator shall monitor at least once every calendar day that the thermal oxidizer is used. Within 8 months of approval of this part pursuant to Application 13691, the owner/operator shall submit the first six months of results of the H2S analysis to the District's Engineering and Enforcement and Compliance Departments for review. [40 CFR 60.13(i), BAAQMD Regulation 2-6-501]

11. During calendar year 2013, if more than 30,682 bbl per day of crude oil and/or gas oil are delivered by tanker, barge or ship at the Marine Terminal (S425, S426) on a 12 month rolling average basis, SO_2 emissions reductions will be provided as described below.
    - SO_2 emissions at the Carbon Plant (BAAQMD Plant A0022) sources S1 and S2 will be reduced from the 3 year average of 7,605 lb/d SO_2 by an amount equal to or greater than the calculation below;

- 1,115 lb SO_2 per ship. One (1) ship assumed for every 325,000 bbl, or fraction thereof, of crude and/or gas oil delivered above the 30,682 bbl/d (11,198,930 bbl per 12 months) limit;

During calendar year 2013, Phillips 66 will submit a monthly report to BAAQMD that includes the following information:

- rolling 12-month crude and/or gas oil average volume delivered to the Marine Terminal for that month;
- if the rolling 12-month average volume that month is above 30,682 bbl/d, the SO_2 emissions requiring reduction from ships calculated using the SO_2 emission estimation methodology above;
- Carbon Plant S1 and S2 SO_2 emissions during that month with analysis showing reduction below baseline emissions of 7,605 lb/d SO2. [2-2-303]

12. During calendar year 2013, the owner/operator shall limit the number of additional ships to 11 to ensure that the additional emissions of PM10 during 2013 do not exceed 0.64 tons. [2-2-303]

13. If the requirement for 0.1% sulfur fuel in CCR, Title 13, Division 3, Chapter 5.1, Section 2299.2, Fuel Sulfur and Other Operational Requirements for Ocean-Going Vessels Within California Waters and 24 Nautical Miles of the California Baseline is stayed for any reason, the owner/operator shall submit a plan by February 28, 2014, to the BAAQMD Engineering Division to supply SO2 and PM10 offsets to offset the increase in SO2 and PM10 emissions or to offer other contemporaneous reductions. The plan will be subject to BAAQMD approval. [2-2-303]

14. ~~Within 90 days of issuance of the permit to operate pursuant to Application 22904, the owner/operator shall supply 0.503 tons of SO2 offsets. [2-4-410]~~Deleted Application 22906.

Condition 12124 has been amended to increase the throughput of crude oil to 10 million barrels per year, to allow other petroleum liquids with a vapor pressure less than 3 psia, and to add BACT requirements. The reason to limit the contents to crude oil or petroleum liquids less than 3 psia is that the BACT requirements for other petroleum liquids is addition of a dome roof. The permit condition in the original evaluation only allows crude oil. Before issuance, the condition was amended to include other petroleum liquids under 3 psia.

CONDITION 12124

CONDITIONS FOR S439, TANK (T-109)

~~1. The following total throughput shall not be exceeded in any rolling continuous 12 month period:~~

~~3,650 thousand barrels [Cumulative Increase]~~

1. The owner/operator shall ensure that S439 stores only crude oil or petroleum liquids with a vapor pressure of 3.0 psia or less. [BACT]

2. The following total throughput of crude oil shall not be exceeded in any rolling continuous 12 month period:

   10 million barrels [Cumulative Increase]

3~~2~~. S439 shall operate with closed, gasketed covers on all tank openings except pressure relief valves and vacuum breaker valves. ~~[BACT]~~ The owner/operator shall equip S439 with a BAAQMD approved roof with liquid mounted primary seal that meets the design criteria of BAAQMD Regulation 8-5-321.3 and secondary seal that meets the design criteria of BAAQMD Regulation 8-5-322.5. The owner/operator shall ensure that there are no ungasketed roof penetrations, no slotted pipe guide poles unless equipped with float and wiper seals, and no adjustable roof legs unless fitted with vapor seal boots or equivalent. [BACT, cumulative increase]

4~~3~~. Monthly records of the throughput of each material processed at this tank shall be kept in a District-approved log for at least 5 years and shall be made available to the District upon request. [Cumulative Increase]

Condition 22478 has been amended to limit the contents of S334 to crude oil, to delete the vapor pressure requirement, to increase the throughput to 10 million barrels per year, , to allow other petroleum liquids with a vapor pressure less than 3 psia, and to add BACT requirements. The reason to limit the contents to crude oil or other petroleum liquids with a vapor pressure less than 3 psia is that the BACT requirements for other petroleum liquids is addition of a dome roof. The permit condition in the original evaluation only allows crude oil. Before issuance, the condition was amended to include other petroleum liquids under 3 psia.

CONDITION 22478
For Sources S123 (Tank 168), S124 (Tank 169), S186 (Tank 298), and S334 (Tank 107)

1. The owner/operator shall ensure that S123 contains only water and petroleum liquid with a true vapor pressure less than or equal to 3.0 psia. [Cumulative Increase]

2. The owner/operator shall ensure that S124 contains only water and petroleum liquid with a true vapor pressure less than or equal to 11.0 psia. [Cumulative Increase]

3. The owner/operator shall ensure that the emissions of S186 do not exceed 2,231 lb VOC in any consecutive 12-month period. S186 shall only contain petroleum liquids. [Cumulative Increase]

4. The owner/operator shall ensure that S334 contains only crude oil or a petroleum liquid with a true vapor pressure less than or equal to 3.0 psia ~~or a less volatile petroleum liquid with a true vapor pressure less than or equal to 6.75 psia~~. [BACT, Cumulative Increase]

5. The owner/operator shall ensure that the throughput of petroleum liquids at S123 does not exceed 3,000,000 barrels/yr. [Cumulative Increase]

6. The owner/operator shall ensure that the throughput of petroleum liquids at S124 does not exceed 3,000,000 barrels/yr. [Cumulative Increase]

7. The owner/operator shall ensure that the throughput of crude oil or other petroleum liquids at S334 does not exceed ~~5~~10,000,000 barrels/~~yr~~any consecutive 12-month period. [Cumulative Increase]

8a. The owner/operator shall equip S123, S124, and S186~~, and S334~~ with a BAAQMD approved roof with mechanical shoe primary seal and zero gap secondary seal meeting the design criteria of BAAQMD Regulation 8, Rule 5. The owner/operator shall ensure that there are no ungasketed roof penetrations, no slotted pipe guide poles unless equipped with float and wiper seals, and no adjustable roof legs unless fitted with vapor seal boots or equivalent. [BACT, cumulative increase]

8b. The owner/operator shall operate S334 with closed, gasketed covers on all tank openings except pressure relief valves and vacuum breaker valves. The owner/operator shall equip S334 with a BAAQMD approved roof with liquid mounted primary seal that meets the design criteria of BAAQMD Regulation 8-5-321.3 and secondary seal that meets the design criteria of BAAQMD Regulation 8-5-322.5. The owner/operator shall ensure that there are no ungasketed roof penetrations, no slotted pipe guide poles unless equipped with float and wiper seals, and no adjustable roof legs unless fitted with vapor seal boots or equivalent. [BACT, cumulative increase]

9. The owner/operator shall calculate the emissions of S186 on a calendar month basis using the AP-42 equations. The owner/operator shall use actual throughputs, actual vapor pressures, and actual temperature data for each month. The owner/operator shall calculate the emissions for the last 12-month period on a monthly basis. The calculations shall be complete within a calendar month after the end of each monthly period. [Cumulative increase]

S340, Tank, is subject to new Condition 25223, which contains the new throughput limit, a limit on the contents to crude oil or petroleum liquids under 3 psia, and BACT requirements. The reason to limit the contents to crude oil or petroleum liquids less than 3 psia is that the BACT requirements for other petroleum liquids is addition of a dome roof. The permit condition in the original evaluation only allows crude oil. Before issuance, the condition was amended to include other petroleum liquids under 3 psia.

CONDITION 25223
For Source S340 (Tank 108)

1. The total throughput of crude oil shall not exceed 10 million barrels in any rolling continuous 12 month period. [Cumulative Increase]

2.The tank shall only store crude oil *or petroleum liquids with a true vapor pressure of 3.0 psia or less*. [BACT]

3. The owner/operator shall operate S340 with closed, gasketed covers on all tank openings except pressure relief valves and vacuum breaker valves. The owner/operator shall equip S340 with a BAAQMD approved roof with liquid mounted primary seal that meets the design criteria of BAAQMD Regulation 8-5-321.3 and secondary seal that meets the design criteria of BAAQMD Regulation 8-5-322.5. The owner/operator shall ensure that there are no ungasketed roof penetrations, no slotted pipe guide poles unless equipped with float and

wiper seals, and no adjustable roof legs unless fitted with vapor seal boots or equivalent. [BACT, cumulative increase]

4. Monthly records of the throughput of each material processed at this tank shall be kept in a District-approved log for at least 5 years and shall be made available to the District upon request. [Cumulative Increase]

S97, Tank, is subject to new Condition 25477, which contains the new throughput limit, a limit on the contents to crude oil, and BACT requirements. The reason to limit the contents to crude oil is that the BACT requirements for other petroleum liquids is addition of a dome roof.

CONDITION 25477
For Source S97 (Tank 100)

1. The total throughput of crude oil shall not exceed 15.571 million barrels in any rolling continuous 12 month period. The tank shall only store crude oil. [BACT, Cumulative Increase]

2. The owner/operator shall operate S97 with closed, gasketed covers on all tank openings except pressure relief valves and vacuum breaker valves. The owner/operator shall equip S97 with a BAAQMD approved roof with liquid mounted primary seal that meets the design criteria of BAAQMD Regulation 8-5-321.3 and secondary seal that meets the design criteria of BAAQMD Regulation 8-5-322.5. The owner/operator shall ensure that there are no ungasketed roof penetrations, no slotted pipe guide poles unless equipped with float and wiper seals, and no adjustable roof legs unless fitted with vapor seal boots or equivalent. [BACT, Cumulative increase]

3. Monthly records of the throughput of each material processed at this tank shall be kept in a District-approved log for at least 5 years and shall be made available to the District upon request. [Cumulative Increase]

S261, Tank, is subject to new Condition 25478, which contains the new throughput limit and a limit on the contents to gas oil, naphtha, or distillate oil, and equipment requirements. The tank will not be subject to BACT because the emissions will be below 10 lb POC/day.

CONDITION 25478
For Source S261 (Tank 1010)

1. The total throughput of gas oil shall not exceed 5.476 million barrels in any rolling continuous 12 month period. The tank shall only store gas oil, naphtha, or distillate oil. [Cumulative Increase]

2. The owner/operator shall operate S261 with closed, gasketed covers on all tank openings except pressure relief valves and vacuum breaker valves. The owner/operator shall equip S261 with a BAAQMD approved roof with liquid mounted primary seal that meets the design criteria of BAAQMD Regulation 8-5-321.3 and secondary seal that meets the design criteria of BAAQMD Regulation 8-5-322.5. The owner/operator shall ensure that there are

no ungasketed roof penetrations, no slotted pipe guide poles unless equipped with float and wiper seals, and no adjustable roof legs unless fitted with vapor seal boots or equivalent. [Cumulative increase]

3. Monthly records of the throughput of each material processed at this tank shall be kept in a District-approved log for at least 5 years and shall be made available to the District upon request. [Cumulative Increase]

Tanks S97, S261, and S340 were subject to condition 20989, which applies to "grandfathered" sources, and generally means a source that existed before 1979 and has never been subject to Regulation 2, Rule 2, New Source Review. They are now subject to Conditions 25477, 25478, and 25223, respectively.

CONDITION 20989

A. THROUGHPUT LIMITS

The following limits are imposed through this permit in accordance with Regulation 2-1-234.3. Sources require BOTH hourly/daily and annual throughput limits (except for tanks and similar liquid storage sources, and small manually operated sources such as cold cleaners which require only annual limits). Sources with previously imposed hourly/daily AND annual throughput limits are not listed below; the applicable limits are given in the specific permit conditions listed above in this section of the permit. Also, where hourly/daily capacities are listed in Table II-A, these are considered enforceable limits for sources that have a New Source Review permit. Throughput limits imposed in this section and hourly/daily capacities listed in Table II-A are not federally enforceable for grandfathered sources. Grandfathered sources are indicated with an asterisk in the source number column in the following table. Refer to Title V Standard Condition J for clarification of these limits.

In the absence of specific recordkeeping requirements imposed as permit conditions, monthly throughput records shall be maintained for each source.

source number	hourly / daily throughput limit	annual throughput limit (any consecutive 12-month period unless otherwise specified)
~~*97~~	~~NA for tank~~	~~1.1 E 7 bbl~~
~~*261~~	~~NA for tank~~	~~7.01 E 7 bbl~~
~~340~~	~~NA for tank~~	~~7.67 E 6 bbl~~

S14, Heater, has been shut down and has been used as a source of offsets for the Marine Terminal project. Please see Application 22904 for details. Therefore, the following changes were made to Condition 1694. It will be deleted from the list of sources and throughput limits in part A.1b and the list of sources subject to NSPS Subpart J in part A.6. It has also been deleted from the combined limit for sources S9, S10, S11, S12, S13, and S14 in part F.1b. The combined limit has been lowered from 877.3 to 616.4 MMbtu/hr averaged over any consecutive 12-month period. Part F.5 has been added to require permanent shutdown of S14.

S14 has also been deleted from the Regulation 9-10 Startup and Shutdown Provisions in Part G.1.

CONDITION 1694
CONDITIONS FOR COMBUSTION SOURCES AND SO2 CAP, EXCEPT FOR GAS TURBINES, DUCT BURNERS, ENGINES, AND S45, HEATER (U246 B801 A/B)

A. Heater Firing Rate Limits and General Requirements

1a. Each heater listed below shall not exceed the indicated daily firing rate limit (based on higher heating value of fuel), which are considered maximum sustainable firing rates. The indicated hourly firing rate is the daily limit divided by 24 hours and is the basis for permit fees and is the rate listed in the District database.

District Source Number	Refinery ID Number	Daily Firing Limit (MMbtu/day)	Hourly Firing Rate (MMbtu/hr)
S7	U231/B103	1,536	64
S21	U244/B507	194.4	8.1

[Regulation 2-1-234.3]

1b. Each heater listed below shall not exceed the indicated daily firing rate limit (based on higher heating value of fuel), which are considered maximum sustainable firing rates. The indicated hourly firing rate is the daily limit divided by 24 hours and is the basis for permit fees and is the rate listed in the District database.

District Source Number	Refinery ID Number	Daily Firing Limit (MM BTU/day)	Hourly Firing Rate (MM BTU/hr)
S2	U229/B301	528	22
S3	U230/B201	1,272	53
S4	U231/B101	2,304	96
S5	U231/B102	2,496	104
S9	U240/B2	1,464	61
S10	U240/B101	5,352	223
S11	U240/B201	2,592	108
S12	U240/B202	1,008	42
S13	U240/B301	4,656	194
~~S14~~	~~U240/B401~~	~~13,344~~	~~556~~
S15 thru S19	U244/B501 thru B505	5,754	239.75
S20	U244/B506	552	23
S22	U248/B606	744	31
S29	U200/B5	2,472	103
S30	U200/B101	1,200	50
S31	U200/B501	480	20
S43	U200/B202	5,520	230

S44	U200/B201	1,104	46
S351	U267	2,280	95
S336	U231/B104	2,664	111
S337	U231/B105	816	34
S371/372	U228/B520 and B521	1,392	58
		[Regulation 2-1-301]	

1c. Each heater listed below shall not exceed the indicated daily firing rate limit (based on higher heating value of fuel), which are considered maximum sustainable firing rates. The indicated hourly firing rate is the daily limit divided by 24 hours and is the basis for permit fees and is the rate listed in the District database.

District Source Number	**Refinery ID Number**	**Daily Firing Limit (MMbtu/day)**	**Hourly Firing Rate (MMbtu/hr)**
S438	U110	6,000	250
		[Cumulative Increase]	

2a. All sources shall use only refinery fuel gas and natural gas as fuel, EXCEPT for S438 which may also use pressure swing adsorption (PSA) off gas as fuel, and EXCEPT for S3 and S7 which may also use naphtha fuel during periods of natural gas curtailment, test runs, or for operator training. [Regulation 9-1-304 (sulfur content), Regulation 2, Rule 1, Consent Decree Case No. 05-0258, DATE: 1/27/05] Amended Application 12931

2b. Sources S3 and S7 are permitted to use naphtha fuel only during periods of natural gas curtailment, test runs, or for operator training. These sources shall be monitored for visible emissions during tube cleaning. If any visible emissions are detected when the operation commences, corrective action shall be taken within one day, and monitoring shall be performed after the corrective action is taken. If no visible emissions are detected, monitoring shall be performed on an hourly basis. [Regulation 2-6-409.2, Consent Decree Case No. 05-0258, DATE: 1/27/05] Amended Application 12931

2c. Sources S3 and S7 are permitted to use naphtha fuel only during periods of natural gas curtailment, test runs, or for operator training. These sources shall be monitored for visible emissions before each 1 million gallons of liquid fuel is combusted at each source. If an inspection documents visible emissions, a Method 9 evaluation shall be completed within 3 working days, or during the next scheduled operating period if the specific unit ceases firing on liquid fuel within the 3 working day time frame. [Regulation 2-6-409.2, Consent Decree Case No. 05-0258, DATE: 1/27/05]. Amended Application 12931

3a. The refinery fuel gas shall be tested for total reduced sulfur (TRS) concentration by GC analysis at least once per 8 hour shift (3 times per calendar day). At least 90% of these samples shall be taken each calendar month. No readable samples or sample results shall be omitted. TRS shall include hydrogen sulfide, methyl mercaptan, methyl sulfide, dimethyl disulfide. As an alternative to GC TRS analysis, the fuel gas total sulfur content may be measured with a dedicated total sulfur analyzer (Houston Atlas or equivalent), and TRS concentration estimated based on the total sulfur/TRS ratio, with the TRS estimate increased by a 5% margin for conservatism. The total sulfur/TRS ratio shall be determined at least on

a monthly basis through GC analyses of total sulfur and TRS values, and the most recent ratio shall be used to estimate TRS concentration. [SO2 Bubble]

3b. The average of the 3 daily refinery fuel gas TRS sample results shall be reported to the District in a table format each calendar month, with a separate entry for each daily average. Sample reports shall be submitted to the District within 30 days of the end of each calendar month. Any omitted sample results shall be explained in this report. [SO2 Bubble]

4. Emissions of SO2 shall not exceed 1,612 lb/day on a monthly average basis from non-cogeneration sources burning fuel gas or liquid fuel. This limit shall not include S45, Heater (U246) and shall not include any engine. [SO2 Bubble]

5. The following records shall be maintained in a District-approved log for at least 5 years and shall be made available to the District upon request:

   a. Daily and monthly records of the type and amount of fuel combusted at each source listed in Part A.1. [Regulation 2, Rule 1]
   b. TRS sample results as required by Part A.3 [SO2 Bubble]
   c. SO2 emissions as required by Part A.4 [SO2 Bubble]
   d. The operator shall keep records of all visible emission monitoring required by Part 2b, shall identify the person performing the monitoring and shall describe all corrective actions taken [Regulation 2-6-409.2]
   e. The operator shall keep records of all visible emission monitoring required by Part 2c, of the results of required visual monitoring and Method 9 evaluations on these sources, shall identify the person performing the monitoring and shall describe all corrective actions taken.

   [Regulation 2-6-409.2]

6. Sources listed below are affected facilities under NSPS Subpart J and are subject to the application requirements of NSPS Subparts A and J for fuel gas combustion devices. [Consent Decree Case No. 05-0258, DATE: 1/27/05]

   S2 U229/B301
   S3 U230/B201
   S4 U231/B101
   S5 U231/B102
   S7 U231/B103
   S8 U240/B1
   S9 U240/B2
   S10 U240/B101
   S11 U240/B201
   S12 U240/B202
   S13 U240/B301
   ~~S14 U240/B401~~
   S15-S19 U244/B501-B505
   S20 U244/B506
   S21 U244/B507
   S22 U244/B606
   S29 U200/B5
   S30 U200/B101

S31 U200/B501

B. S351 PREHEATER

1. The S351 heater shall be abated by the A6 SCR unit at all times, except that S351 may operate without SCR abatement on a temporary basis for periods of planned or emergency maintenance. A District-approved NOx CEM shall monitor and record the S351 NOx emission rate whenever S351 operates without abatement. All emission limits applicable to S351 shall remain in effect whether or not it is operated with SCR abatement. [BACT, Cumulative Increase]

2. The concentration of NOx from S351 shall not exceed 20 ppmv @ 3% oxygen, dry, averaged over any consecutive 3 hour period. This limit shall not apply during a startup period which shall not exceed 12 hours. The startup exemption period may last up to 24 hours to allow the proper ammonia injection temperature to be reached provided that the temperature is monitored at least once per hour and that ammonia injection begins within 2 hours of reaching the proper temperature. This limit shall also not apply during a shutdown period which shall not exceed 9 hours. [BACT, Cumulative Increase]

3. The following instruments shall be installed and maintained to demonstrate compliance with Part 2:

   a. continuous NOx analyzer/recorder
   b. continuous O2 or CO analyzer/recorder [BACT, Cumulative Increase]

C. S371 AND S372 FURNACES

1. The S371 furnace shall be abated by the A16 SCR unit at all times, and the S372 furnace shall be abated by the A17 SCR unit at all times, except that S371 and S372 may operate without SCR abatement on a temporary basis for periods of planned or emergency maintenance. A District-approved NOx CEM shall monitor and record the NOx emission rates from these heaters whenever they operate without abatement. All emission limits applicable to S371 and S372 shall remain in effect whether or not they are operated with SCR abatement. [BACT, Cumulative Increase]

2. The concentration of NOx from S371 and S372 shall not exceed 20 ppmv, dry, corrected to 3% oxygen, averaged over any consecutive 3 hour period. This limit shall not apply during a startup period, which shall not exceed 12 hours. The startup exemption period may last up to 24 hours to allow the proper ammonia injection temperature to be reached provided that the temperature is monitored at least once per hour and that ammonia injection begins within 2 hours of reaching the proper temperature. This limit shall also not apply during a shutdown period which shall not exceed 9 hours. [BACT, Cumulative Increase]

3. The concentration of CO emissions from S371 and S372 shall not exceed 50 ppmv, dry, corrected to 3% oxygen, averaged over any consecutive 3 hour period. This limit shall not apply during a startup period, which shall not exceed 12 hours. The startup exemption period may last up to 24 hours to allow the proper ammonia injection temperature to be reached provided that the temperature is monitored at least once per hour and that ammonia

injection begins within 2 hours of reaching the proper temperature. This limit shall also not apply during a shutdown period, which shall not exceed 9 hours.
[BACT, Cumulative Increase]

D. S43 Coking Furnace (Unit 200 B-202) and S44 (Unit 200 B-201 PCT Reboil Furnace)

1. Nitrogen oxide emissions from the S43 Coking Furnace (Unit 200 B-202) shall be abated by Selective Catalytic Reduction Unit A4 at all times, except that S43 may operate without SCR abatement on a temporary basis for periods of planned or emergency maintenance. A District-approved NOx CEM shall monitor and record the S43 NOx emission rate whenever S43 operates without abatement. All emission limits applicable to S43 shall remain in effect whether or not it is operated with SCR abatement.
[BACT, Cumulative Increase]

2. The nitrogen oxides in the flue gases for S43, Unit 200 B-202 Coking Furnace and S44, Unit 200 B-201 PCT Reboil Furnace shall not exceed 40 ppmdv corrected to 3% oxygen, dry, over any consecutive 8 hour period. This limit shall not apply during a startup period which shall not exceed 12 hours. The startup exemption period may last up to 24 hours to allow the proper ammonia injection temperature to be reached provided that the temperature is monitored at least once per hour and that ammonia injection begins within 2 hours of reaching the proper temperature. This limit shall also not apply during a shutdown period which shall not exceed 9 hours.
[BACT, Cumulative Increase]

3. The carbon monoxide in the flue gas for S43, Unit 200 B-202 Coking Furnace and S44, Unit 200 B-201 PCT Reboil Furnace shall not exceed 50 ppmdv corrected to 3% oxygen averaged over any calendar month. This condition shall not apply during start-up and shutdown. [BACT, Cumulative Increase]

4. Instruments shall be installed and operated to continuously monitor the percentage of oxygen and the concentration of nitrogen oxides from the following sources: S43, Unit 200 B-202 Coking Furnace and S44, Unit 200 B-201 PCT Reboil Furnace.
[BACT, Cumulative Increase]

E. S438 FURNACE

1. The S438 furnace shall be abated by the A46 SCR unit at all times, except that S438 may operate without SCR abatement on a temporary basis for periods of planned or emergency maintenance. A District-approved NOx CEM shall monitor and record the S438 NOx emission rate whenever S351 operates without abatement. All emission limits applicable to S438 shall remain in effect whether or not it is operated with SCR abatement.
[BACT, Cumulative Increase]

2. Total fuel fired in S438 shall not exceed 2.19 E 12 btu in any rolling consecutive 365 day period. [Cumulative Increase]

3. Pressure swing adsorption (PSA) off gas used as fuel at S438 shall not exceed 1.0 ppm (by weight) total reduced sulfur (TRS). TRS shall include hydrogen sulfide, methyl mercaptan, methyl sulfide, dimethyl disulfide. [BACT, Cumulative Increase]

4. The following emission concentration limits from S438 shall not be exceeded. These limits shall not apply during startup periods not exceeding 24 hours (72 hours when drying refractory or during the first startup following catalyst replacement) and shutdown periods not exceeding 24 hours. The District may approve other startup and shutdown durations.

   NOx: 7 ppmv @ 3% oxygen, averaged over any 1 hour period
   CO: 32 ppmv @ 3% oxygen, averaged over any calendar day
   POC: 0.0023 lb/MMbtu of fuel used [BACT, Cumulative Increase]

5. The concentration of TRS in the blended fuel gas shall not exceed 14 ppmv averaged over any calendar month. [SO2 bubble, Cumulative Increase]

6. Daily records of the type and amount of fuel combusted at S438 and of the TRS and hydrogen sulfide concentration in the blended fuel gas, and monthly records of average blended fuel gas TRS concentration, shall be maintained for at least five years and shall be made available to the District upon request. [Cumulative Increase]

7. No later than 90 days from the startup of S438, the owner/operator shall conduct District-approved source tests to determine initial compliance with the limits in Part 4 for NOx, CO and POC. The owner/operator shall conduct the source tests in accordance with Part 8. The owner/operator shall submit the source test results to the District staff no later than 60 days after the source test. [BACT, Cumulative Increase]

8. The owner/operator shall obtain approval for all source test procedures from the District's Source Test Section prior to conducting any tests. The owner/operator shall comply with all applicable testing requirements for continuous emissions monitors as specified in Volume V of the District's Manual of Procedures. The owner/operator shall notify the District's Source Test Section, in writing, of the source test protocols and projected test dates at least 7 days prior to testing. [BACT, Cumulative Increase]

F. S2, S3, S4, S5, S7, S9, S10, S11, S12, S13, ~~S14~~Heaters

1b. Total fuel firing at Unit 240 (S9, S10, S11, S12, S13~~, S14~~) shall not exceed ~~877.3~~ 616.4 MMbtu/hr (based on higher heating value) averaged over any consecutive 12 month period. [Cumulative Increase]
~~[Part 1b will be effective after S8 is removed from service pursuant to Application 13424.]~~

2. Total fuel fired at the MP-30 Complex, including Unit 229 (S2), Unit 230 (S3) and Unit 231 (S4, S5, S7) shall not exceed 346.5 MMbtu/hr (based on higher heating value) averaged over any consecutive 12 month period. [Cumulative Increase]

3. Monthly records of the fuel fired at sources in Parts 1 and 2 shall be kept in a District-approved log for at least 5 years and shall be made available the District upon request. [Cumulative Increase]

4. The owner/operator shall not exceed the following NOx emission limits as measured by NOx CEMs:

a. S10: 0.015 lb NOx per MMbtu heat input based on a 12 consecutive month average.
b. S13: 0.015 lb NOx per MMbtu heat input based on a 12 consecutive month average.
c. S15, S16, S17, S18 and S19 combined: 0.015 lb NOx per MMbtu heat input based on a 12 consecutive month average. [Basis: ConocoPhillips-EPA Consent Decree Case No. H-05-0258]

5. The owner/operator shall permanently shut down S14, (Unit 240 B-401) Heater to provide offsets to allow the throughputs in Condition 4336, part 7, at S425 and S426, Marine Terminals. [BAAQMD Regulations 2-2-302, 2-2-303]

G. Regulation 9-10 Startup / Shutdown Provisions [Basis: 9-10-301]

For determining compliance with Regulation 9-10-301, the contribution of each affected unit that is in a startup or shutdown condition shall be based on the methods described in 9-10-301.1, and the contribution of each affected unit that is in an out of service condition shall be based on the methods described in 9-10-301.2. Low-firing conditions (no higher than 20% of a unit's rated capacity), including refractory dryout periods, shall be considered out of service conditions subject to the 30-day averaging procedure in Regulation 9-10-301.2, including the 60-day annual limit for this procedure.

1. ~~Heaters S14 (Unit 240, B-401) and~~ Heater S44 (Unit 200, B-201) shall be considered to be in normal operation whenever ~~they have~~ it has detectable fuel flow, and shall be considered to be out of service for the purpose of Regulation 9-10-301 whenever it has ~~they have~~ undetectable fuel flow.

2. For heaters S43 (Unit 200, B-202), S351 (Unit 267, B-601/602) and S371/372 (Unit 228, B-520/521), the durations of startups, shutdowns and refractory dryout periods are defined in Condition 1694, Part D.2 (S43), Part B.2 (S351) and Part C.2 (S371, S372).

3. For heaters S10 (Unit 240, B-101) and S15 through S19 (Unit 244, B-501 through B-505), the duration of startups, shutdowns and low-firing periods are defined as follows:

   a. startup and shutdown periods are not to exceed 24 hours
   b. low-firing periods are not to exceed 72 hours

4. For heater S13 (Unit 240, B-301), the duration of startups, shutdowns and low-firing periods are defined as follows:

   a. startup and shutdown periods are not to exceed 72 hours
   b. low-firing periods are not to exceed 72 hours

5. For heaters with no CEMS:

   S2 (Unit 229, B-301)
   S3 (Unit 230, B-201)
   S4 (Unit 231, B-101)
   S5 (Unit 231, B-102)
   S7 (Unit 231, B-103)
   S9 (Unit 240, B-2)
   S11 (Unit 240, B-201)
   S12 (Unit 240, B-202)
   S20 (Unit 244, B-506)

S22 (Unit 248, B-606)
S29 (Unit 200, B-5)
S30 (Unit 200, B-101)
S31 (Unit 200, B-501)
S336 (Unit 231, B-104)
S337 (Unit 231, B-105)

startups, shutdowns, and out of service conditions shall each not exceed 5 days in succession at each source.

S14, Heater, will be deleted from the condition 21235, which has the requirements for monitoring for Regulation 9, Rule 10, Nitrogen Oxides and Carbon Monoxide from Boilers, Steam Generators, and Process Heaters in Petroleum Refineries.

CONDITION 21235 (excerpt)

Regulation 9-10 Refinery-Wide Compliance

CONDITIONS FOR SOURCES S2, S3, S4, S5, S7,-S9, S10, S11, S12, S13, ~~S14,~~ S15, S16, S17, S18, S19, S20, S22, S29, S30, S31, S43, S44, S336, S337, S351, S371, S372

1. The following sources are subject to the refinery-wide NOx emission rate and CO concentration limits in Regulation 9-10: [Regulation 9-10-301 and 305]

S#	Description	NOx CEM
2	U229, B-301 Heater	No
3	U230, B-201 Heater	No
4	U231, B-101 Heater	No
5	U231, B-102 Heater	No
7	U231, B-103 Heater	No
9	U240, B-2 Boiler	No
10	U240, B-101 Heater	Yes
11	U240, B-201 Heater	No
12	U240, B-202 Heater	No
13	U240, B-301 Heater	Yes
~~14~~	~~U240, B-401 Heater~~	~~Yes~~
15	U244, B-501 Heater	Yes
16	U244, B-502 Heater	Yes
17	U244, B-503 Heater	Yes
18	U244, B-504 Heater	Yes
19	U244, B-505 Heater	Yes
20	U244, B-506 Heater	No
22	U248, B-606 Heater	No
29	U200, B-5 Heater	No
30	U200, B-101 Heater	No
31	U200, B-501 Heater	No
43	U200, B-202 Heater	Yes
44	U200, B-201 PCT Reboil Furnace	Yes
336	U231 B-104 Heater	No

337 U231 B-105 Heater No
351 U267 B-601/602 Tower Pre-Heaters Yes
371 U228 B-520 (Adsorber Feed) Furnace Yes
372 U228 B-521 (Hydrogen Plant) Furnace Yes

The operating temperature for A49, DAF Thermal Oxidizer has been added to Condition 1440, part 7.b.ii. An excerpt of the condition is shown.

CONDITION 1440 (excerpt)
CONDITIONS FOR S324, S381, S382, S383, S384, S385, S386, S387, S390, S392, S400, S401 S1007, S1008, S1009

7b. The following conditions apply to operation of A49, DAF Thermal Oxidizer:

i. Within 90 days of the startup date of A49, DAF Thermal Oxidizer, the owner/operator shall perform a source test to determine the following:

1. Mass emissions rate for POC that is collected and sent to A49.
2. Mass emissions rate for POC after abatement by A49.
3. Mass emissions rate for H2S that is collected and sent to A49.
4. Mass emissions rate for H2S after abatement by A49.
5. Mass emissions rate for SO2

During the source test, the owner/operator shall determine the temperature required to achieve 98.0% destruction by weight of POC or a concentration of 10 ppmv POC at the outlet. The temperature shall become an enforceable limit.

ii. After the initial source test required in Part 8 of this condition, the minimum temperature ~~determined shall become the minimum temperature limit~~ for A49 shall be 1445 F.

Part 4 of Condition was removed in error in the minor revision issued March 4, 2013. S301 has not been removed, so the section is being reinstated.

CONDITION 22964
Sources S301, S302, S303, S465, Sulfur Pits, and S1010, Sulfur Recovery Unit

1. The owner/operator shall ensure that the throughput of molten sulfur at S301, S302, and S303 combined does not exceed 98,915 long tons per consecutive 12-month period. [Cumulative Increase]

2. The owner/operator shall ensure that the throughput of molten sulfur at S465 does not exceed 73,000 long tons per consecutive 12-month period. [Cumulative Increase]

3. The owner/operator shall ensure that S465, Sulfur Pit, is controlled at all times by S1010, Sulfur Recovery Unit. [Cumulative increase, 40 CFR 60.104(b)]

4. ~~Deleted Application 17632~~The owner/operator shall ensure that S301, Molten Sulfur Pit, is abated by A8, Stretford Evaporative Cooler. [Consent Decree Case No. 05-0258, paragraph

123, DATE: 1/27/05; Consent Decree Case No. 05-0258 amendment, paragraph 123, DATE: 5/1/07; 40 CFR 60.104(a)(2)(i)]

5. The owner/operator shall ensure that S302, Molten Sulfur Pit, is abated by A9, Stretford Evaporative Cooler. [Consent Decree Case No. 05-0258, paragraph 123, DATE: 1/27/05; Consent Decree Case No. 05-0258 amendment, paragraph 123, DATE: 5/1/07; 40 CFR 60.104(a)(2)(i)]

6. The owner/operator shall ensure that S303, Molten Sulfur Pit, is abated by A10, Stretford Evaporative Cooler. [Consent Decree Case No. 05-0258, paragraph 123, DATE: 1/27/05; Consent Decree Case No. 05-0258 amendment, paragraph 123, DATE: 5/1/07; 40 CFR 60.104(a)(2)(i)]

7. Notwithstanding the requirements of parts 4-6, the owner/operator may disconnect the vent lines from S301, S302, and S303, Molten Sulfur Pits, to A8, A9, and A10, Stretford Evaporative Coolers, for periodic maintenance without penalty, as long as the owner/operator takes reasonable measures to minimize emissions while such periodic maintenance is being performed. [Consent Decree Case No. 05-0258 amendment, paragraph 123, DATE: 5/1/07]

8. The owner/operator shall maintain monthly records of throughput at S301, S302, and S303 combined. These records shall be maintained on site for a minimum of 5 years and shall be made available to District staff upon request. [Cumulative Increase]

9. The owner/operator shall maintain monthly records of throughput at S465. These records shall be maintained on site for a minimum of 5 years and shall be made available to District staff upon request. [Cumulative Increase]

VII. Applicable Limits and Compliance Monitoring Requirements

This section of the permit is a summary of numerical limits and related monitoring requirements for each source. The summary includes a citation for each monitoring requirement, frequency of monitoring, and type of monitoring. The applicable requirements for monitoring are completely contained in Sections IV, Source-Specific Applicable Requirements, and VI, Permit Conditions, of the permit.

In the case of a conflict between Section VII and the other sections of the permit, the other sections govern.

Changes to permit:

The changes to Section VII will be presented in the following order:

- Marine Terminals: S425, S426
- Tanks: S97, S261, S334, S340, S439
- Heaters: S9, S10, S12, S13, S14
- Thermal oxidizer: A49

The change in throughput was added to Table VII-S for S425 and S426.

Table VII – S
Applicable Limits and Compliance Monitoring Requirements
S425 – MARINE LOADING BERTH M1
S426 – MARINE LOADING BERTH M2

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	Excerpt of table						
Through-put	BAAQMD Condition 4336, Part 7	Y		~~30,682~~51,182 bbl/day of crude and/or gas oil received on 12-month rolling average basis	BAAQMD Condition 4336, Part 8	P/D	loading records

Condition 20989 no longer applies to S97. Its new condition is 25477. The other requirements have not changed.

Table VII – BB.13
Applicable Limits and Compliance Monitoring Requirements
MACT ZERO-GAP EXTERNAL FLOATING-ROOF TANKS
S97 (TANK 100), S98 (TANK 101), S100 (TANK 103), S107 (TANK 150), S110 (TANK 155), S111 (TANK 156), S112 (TANK 157), S114 (TANK 159), S115 (TANK 160), S122 (TANK 167), S123 (TANK 168), S124 (TANK 169), S128 (TANK 174), S129 (TANK 180), S150 (TANK 241), S151 (TANK 242), S177 (TANK 287), S178 (TANK 288), S186 (TANK 298), S254 (TANK 1001), S255 (TANK 1002), S256 (TANK 1003), S259 (TANK 1006)

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	Excerpt of table						
	BAAQMD PERMIT CONDITIONS						
	BAAQMD Condition 25477, Part 1	Y		S97: 15.571 MMbbl crude oil/12-month period	BAAQMD Condition 25477, Part 3	P/M	Records and calculations
VOC	BAAQMD Condition 22478, Part 3	Y		S186: 2,231 lb/12-month period	BAAQMD Condition 22478, Part 8	P/M	Records and calculations

Table VII – BB.13
Applicable Limits and Compliance Monitoring Requirements
MACT ZERO-GAP EXTERNAL FLOATING-ROOF TANKS
S97 (TANK 100), S98 (TANK 101), S100 (TANK 103), S107 (TANK 150), S110 (TANK 155), S111 (TANK 156), S112 (TANK 157), S114 (TANK 159), S115 (TANK 160), S122 (TANK 167), S123 (TANK 168), S124 (TANK 169), S128 (TANK 174), S129 (TANK 180), S150 (TANK 241), S151 (TANK 242), S177 (TANK 287), S178 (TANK 288), S186 (TANK 298), S254 (TANK 1001), S255 (TANK 1002), S256 (TANK 1003), S259 (TANK 1006)

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
throughput	BAAQMD Condition 20989, Part A	N		~~S97: 1.1 E 7 bbl/yr~~ S100: 4.38 E 6 bbl/yr S107: 8.76 E 6 bbl/yr S110: 1.40 E 7 bbl/yr S111: 1.31 E 7 bbl/yr S112: 1.49 E 7 bbl/yr S114: 1.31 E 7 bbl/yr S115: 4.38 E 6 bbl/yr S177: 2.63 E 7 bbl/yr S254: 7.01 E 7 bbl/yr S255: 7.01 E 7 bbl/yr S256: 7.01 E 7 bbl/yr S259: 7.01 E 7 bbl/yr	BAAQMD Condition 20989, Part A	P/M	Records
throughput	BAAQMD Condition 20989, Part A	Y		S129: 4.6 E 6 bbl/yr S150: 4.38 E 7 bbl/yr S151: 4.38 E 7 bbl/yr S178: 3.50 E 7 bbl/yr	BAAQMD Condition 20989, Part A	P/M	records
throughput	BAAQMD Condition 22478, Part 5	Y		S123: 3.0 E 6 bbl/yr	BAAQMD 8-5-501.1	periodic initially and upon change of service	Records
throughput	BAAQMD Condition 22478, Part 6	Y		S124: 3.0 E 6 bbl/yr	BAAQMD 8-5-501.1	periodic initially and upon change of service	Records
throughput	BAAQMD Condition 22963, Part 2a	Y		S98: 3.723 E 6 bbl for period October through March	BAAQMD 8-5-501.1	periodic initially and upon change of service	Records
throughput	BAAQMD Condition 22963, Part 2b	Y		S98: 3.723 E 6 bbl for period April through September	BAAQMD 8-5-501.1	periodic initially and upon change of service	Records

Table VII – BB.13
Applicable Limits and Compliance Monitoring Requirements
MACT ZERO-GAP EXTERNAL FLOATING-ROOF TANKS
S97 (TANK 100), S98 (TANK 101), S100 (TANK 103), S107 (TANK 150), S110 (TANK 155), S111 (TANK 156), S112 (TANK 157), S114 (TANK 159), S115 (TANK 160), S122 (TANK 167), S123 (TANK 168), S124 (TANK 169), S128 (TANK 174), S129 (TANK 180), S150 (TANK 241), S151 (TANK 242), S177 (TANK 287), S178 (TANK 288), S186 (TANK 298), S254 (TANK 1001), S255 (TANK 1002), S256 (TANK 1003), S259 (TANK 1006)

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
throughput	BAAQMD Condition 22963, Part 2d	Y		S122: 2.0 E 6 bbl/yr	BAAQMD 8-5-501.1	periodic initially and upon change of service	Records
throughput	BAAQMD Condition 22963, Part 2e	Y		S128: 5.1 E 6 bbl/yr	BAAQMD 8-5-501.1	periodic initially and upon change of service	Records
throughput	BAAQMD Condition 25477, Part 1	Y		S97: 15.571 E 6 bbl/yr Crude oil only	BAAQMD 8-5-501.1; BAAQMD Condition 25477, part 3	periodic initially and upon change of service	Records
throughput	BAAQMD Condition 25477, Part 1	Y		S97: 15.571 E 6 bbl/yr Crude oil only	BAAQMD Condition 25477, part 3	P/M	Records
Vapor pressure	BAAQMD Condition 22478, Part 1	Y		S123: ≤ 3.0 psia	BAAQMD 8-5-501.1	periodic initially and upon change of service	Records
Vapor pressure	BAAQMD Condition 22478, Part 2	Y		S124: ≤ 11.0 psia	BAAQMD 8-5-501.1	periodic initially and upon change of service	Records
Vapor pressure	BAAQMD Condition 22963, Part 1a			S98: < 11 psia for period October through March	BAAQMD 8-5-501.1	periodic initially and upon change of service	Records
Vapor pressure	BAAQMD Condition 22963, Part 1b			S98: < 8.5 psia for period April through September	BAAQMD 8-5-501.1	periodic initially and upon change of service	Records

Table VII – BB.13
Applicable Limits and Compliance Monitoring Requirements
MACT ZERO-GAP EXTERNAL FLOATING-ROOF TANKS
S97 (TANK 100), S98 (TANK 101), S100 (TANK 103), S107 (TANK 150), S110 (TANK 155), S111 (TANK 156), S112 (TANK 157), S114 (TANK 159), S115 (TANK 160), S122 (TANK 167), S123 (TANK 168), S124 (TANK 169), S128 (TANK 174), S129 (TANK 180), S150 (TANK 241), S151 (TANK 242), S177 (TANK 287), S178 (TANK 288), S186 (TANK 298), S254 (TANK 1001), S255 (TANK 1002), S256 (TANK 1003), S259 (TANK 1006)

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Vapor pressure	BAAQMD Condition 22963, Part 1d			S122: < 11 psia	BAAQMD 8-5-501.1	periodic initially and upon change of service	Records
Vapor pressure	BAAQMD Condition 22963, Part 1e			S128: < 4.4 psia	BAAQMD 8-5-501.1	periodic initially and upon change of service	Records

Condition 20989 no longer applies to S261. Its new condition is 25478. The other requirements have not changed.

Table VII – BB.18
Applicable Limits and Compliance Monitoring Requirements
MACT EXTERNAL FLOATING-ROOF TANKS W/O ZERO-GAP SEALS
S113 (TANK 158), S125 (TANK 170), S183 (TANK 295), S184 (TANK 296), S261 (TANK 1010)

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	Excerpt of table						
	BAAQMD PERMIT CONDITIONS						
throughput	BAAQMD Condition 20989, Part A	N		S113: 1.49 E 7 bbl/yr S125: 1.05 E 7 bbl/yr ~~S261: 7.01 E 7 bbl/yr~~	BAAQMD Condition 20989, Part A	P/M	Records
throughput	BAAQMD Condition 20989, Part A	Y		S183: 4.38 E 5 bbl/yr S184: 4.38 E 6 bbl/yr	BAAQMD Condition 20989, Part A	P/M	records

Table VII – BB.18
Applicable Limits and Compliance Monitoring Requirements
MACT EXTERNAL FLOATING-ROOF TANKS W/O ZERO-GAP SEALS
S113 (TANK 158), S125 (TANK 170), S183 (TANK 295), S184 (TANK 296), S261 (TANK 1010)

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
throughput	BAAQMD Condition 25478, Part 1	Y		S261: 5.476 E 6 bbl/yr Gas oil, naphtha, or distillate only	BAAQMD Condition 25478, part 3	P/M	Records

S334 is subject to a new throughput limit and a limitation on the content of the tank.

Table VII – BB.14
Applicable Limits and Compliance Monitoring Requirements
NSPS K AND NSPS KA ZERO-GAP EXTERNAL FLOATING ROOF TANKS
NSPS K - S334 (TANK 107),
NSPS KA - S341 (TANK 208), S342 (TANK 209), S343 (TANK 210)

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	Excerpt of table						
	BAAQMD PERMIT CONDITIONS						
throughput	BAAQMD Condition 20989, Part A	Y		S341: 4.38 E 7 bbl/yr S342: 4.38 E 7 bbl/yr S343: 4.38 E 7 bbl/yr	BAAQMD Condition 20989, Part A	P/M	Records
throughput	BAAQMD Condition 22478, Parts 4 and 7	Y		S334: ~~6.51~~10 E 6 bbl/yr Crude oil or petroleum liquids below 3.0 psia	BAAQMD 8-5-501.1	periodic initially and upon change of service	Records
~~Vapor pressure~~	~~BAAQMD Condition 22478, Part 4~~	~~Y~~		~~S334: < 5.8 psia~~	~~BAAQMD 8-5-501.1~~	~~periodic initially and upon change of service~~	~~Records~~

2. Tanks subject to 63 Subpart CC (MACT) and NSPS K are subject only to MACT per 63.640(n)(5). Source S334 (Tank 107) is subject to NSPS K and MACT.
3. Tanks subject to 63 Subpart CC (MACT) and NSPS Ka are subject only to MACT per 63.640(n)(5). Sources S341 (Tank 208), S342 (Tank 209), and S343 (Tank 210) are subject to NSPS Ka and MACT.

S340 was subject to Condition 20989 and is now subject to Condition 25223.

Table VII – BB.17
Applicable Limits and Compliance Monitoring Requirements
NSPS Ka External Floating Roof Tank with~~/o~~ Zero-Gap Seals
S340 (Tank 108)

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	Excerpt of table						
	BAAQMD PERMIT CONDITIONS						
~~throughput~~	~~BAAQMD Condition 20989, Part A~~	~~Y~~		~~7.67 E 6 bbl/yr~~	~~BAAQMD Condition 20989, Part A~~	~~P/M~~	~~Records~~
throughput	BAAQMD Condition 25223, Part 1	Y		10 E 6 bbl/yr	BAAQMD Condition 25223, Part 3	P/M	Records

2. Tanks subject to 63 Subpart CC (MACT) and NSPS Ka are subject only to MACT per 63.640(n)(5). Source S340 (Tank 108) is subject to NSPS Ka and MACT.

The limit for S439 has been increased to 10 MMbbl/yr and the contents of the tank have been limited to crude oil or petroleum liquids below 3.0 psia. The other requirements have not changed.

Table VII – BB.7
Applicable Limits and Compliance Monitoring Requirements
NSPS Kb Zero Gap External Floating Roof Tanks
S439 (Tank 109), S440 (Tank 110), S442 (Tank 112), S444 (Tank 243)

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	Excerpt of table						
	BAAQMD PERMIT CONDITIONS						
The following applies to S439 only							
throughput	BAAQMD Condition 12124, Part 1	Y		~~3,650~~10,000,000 bbl/yr crude oil only or petroleum liquids below 3.0 psia	BAAQMD Condition 12124, Part 3	P/M	records
The following applies to S440 only							
throughput	BAAQMD Condition 12125, Part 1	Y		3,600,000 bbl/yr	BAAQMD Condition 12125, Part 3	P/M	records
The following applies to S442 only							

Table VII – BB.7
Applicable Limits and Compliance Monitoring Requirements
NSPS Kb Zero Gap External Floating Roof Tanks
S439 (Tank 109), S440 (Tank 110), S442 (Tank 112), S444 (Tank 243)

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
throughput	BAAQMD Condition 12127, Part 1	Y		2,740,000 bbl/yr	BAAQMD Condition 12127, Part 3	P/M	records
The following applies to S444 only							
throughput	BAAQMD Condition 12129, Part 1	Y		4,380,000 bbl/yr	BAAQMD Condition 12129, Part 3	P/M	records

Table VII-A.12 will be deleted in this action because S14, Heater, has been shut down.

~~**Table VII – A.12**~~
~~**Applicable Limits and Compliance Monitoring Requirements**~~
~~**S14 – Unit 240, B-401 Heater**~~

~~Type of Limit~~	~~Citation of Limit~~	~~FE Y/N~~	~~Future Effective Date~~	~~Limit~~	~~Monitoring Requirement Citation~~	~~Monitoring Frequency (P/C/N)~~	~~Monitoring Type~~
~~NOx~~	~~BAAQMD 9-10-301~~	~~N~~		~~Refinery-wide emissions: 0.033 lb NOx/ MMbtu~~	~~BAAQMD 9-10-502.1~~	~~C~~	~~CEM~~
~~NOx~~	~~BAAQMD 9-10-303~~	~~Y~~		~~Federal emissions: Refinery-wide emissions: 0.20 lb NOx/MMbtu~~	~~None~~	~~N~~	~~None~~
~~Heat input~~	~~BAAQMD Condition 1694, Part A.1b~~	~~Y~~		~~13,344 MMbtu/day~~	~~BAAQMD Condition 1694, Part A.5~~	~~P/D~~	~~records~~
~~Heat input~~	~~BAAQMD Condition 1694, Part F.1~~	~~Y~~		~~877.3 MMbtu/hr averaged over any year at S9, S10, S11, S12, S13, S14~~	~~BAAQMD Condition 1694, Part F.3~~	~~P/M~~	~~records~~

Table VII – A.12
Applicable Limits and Compliance Monitoring Requirements
S14 – UNIT 240, B-401 HEATER

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
O2		N		No limit	BAAQMD 9-10-502.1 BAAQMD Condition 21235, Part 2	C	O2 Monitor
CO	BAAQMD 9-10-305	N		400 ppmv (dry, 3% O_2)	BAAQMD 9-10-502.1 BAAQMD Condition 21235, Part 8	P/SA	source test
Opacity	BAAQMD 6-1-304	N		During tube cleaning, Ringelmann No. 2 for 3 min/hr and 6 min/billion btu in 24 hours; applies to sources rated over 140 MMbtu/hr (with tubes)	None for gaseous-fueled sources	N	None
Opacity	SIP 6-304	Y		During tube cleaning, Ringelmann No. 2 for 3 min/hr and 6 min/billion btu in 24 hours; applies to sources rated over 140 MMbtu/hr (with tubes)	None for gaseous-fueled sources	N	None
FP	BAAQMD 6-1-305	N		Prohibition of nuisance	None	N	None
FP	SIP 6-305	Y		Prohibition of nuisance	None	N	None
Opacity	BAAQMD 6-1-301	N		Ringelmann 1 for no more than 3 minutes in any hour	None for gaseous-fueled sources	N	None
Opacity	SIP 6-301	Y		Ringelmann 1 for no more than 3 minutes in any hour	None for gaseous-fueled sources	N	None

~~**Table VII – A.12**~~
~~**Applicable Limits and Compliance Monitoring Requirements**~~
~~**S14 – UNIT 240, B-401 HEATER**~~

~~Type of Limit~~	~~Citation of Limit~~	~~FE Y/N~~	~~Future Effective Date~~	~~Limit~~	~~Monitoring Requirement Citation~~	~~Monitoring Frequency (P/C/N)~~	~~Monitoring Type~~
~~FP~~	~~BAAQMD 6-1-310.3~~	~~N~~		~~0.15 grain/dscf @ 6% O2~~	~~None for gaseous-fueled sources~~	~~N~~	~~None~~
~~FP~~	~~SIP 6-310.3~~	~~Y~~		~~0.15 grain/dscf @ 6% O2~~	~~None for gaseous-fueled sources~~	~~N~~	~~None~~
~~SO2~~	~~BAAQMD Condition 1694, Part A.4~~	~~Y~~		~~1,612 lb/day SO2 over any month from non-cogeneration sources~~	~~BAAQMD Condition 1694, Part A.3a~~	~~P/3 times per day~~	~~TRS analysis~~
~~H2S~~	~~40 CFR 60.104(a)(1)~~	~~Y~~		~~fuel gas H2S concentration limited to 230 mg/dscm (0.10 gr/dscf)~~	~~40 CFR 60.105(a)(4)~~	~~C~~	~~H2S analyzer~~
~~Fuel Flow~~		~~Y~~		~~No limit~~	~~BAAQMD 9-10-502.2~~	~~C~~	~~Fuel Flowmeter~~

The combined throughput limit for S9, S10, S11, S12, S13, and S14, Heaters, has been lowered because S14 has been shut down.

Table VII – A.7, A.8, A.9, A.10, A.11
Applicable Limits and Compliance Monitoring Requirements
S9, S10, S11, S12, S13

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	Excerpt of tables						
Heat input	BAAQMD Condition 1694, Part F.1	Y		~~877,3~~616.4 MMbtu/hr averaged over any year at S9, S10, S11, S12, S13, ~~S14~~	BAAQMD Condition 1694, Part F.3	P/M	records

The temperature limit required by Condition 1440, part 7b was added to Table VII-Da.

Table VII – Da
Applicable Limits and Compliance Monitoring Requirements
A49 DAF THERMAL OXIDIZER

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	Excerpt of table						
Tempe-rature	BAAQMD Condition 1440, Part 7b(ii)	Y		~~Temperature limit TBD~~ 1445 F	BAAQMD Condition 1440, Part 7b(iii)	C	Temperature monitoring

VIII. Test Methods

This section of the permit lists test methods that are associated with standards in District or other rules. It is included only for reference. In most cases, the test methods in the rules are source test methods that can be used to determine compliance but are not required on an ongoing basis. They are not applicable requirements.

If a rule or permit condition requires ongoing testing, the requirement will also appear in Section IV of the permit.

Changes to permit
There are no changes to Section VIII in this action.

IX. Permit Shield:

Changes to permit:
This action proposes no changes to permit shields.

X. Revision History

Changes to permit:

Minor Revision (Application 22906), [enter approval date]

Administrative Amendment (No application) [enter approval date]

XI. Glossary

Changes to permit:
There are no changes to Section XI in this action.

D. Alternate Operating Scenarios:

There are no changes to alternate operating scenarios in this action.

E. Compliance Status:

See Section C.V above.

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APPENDIX A

GLOSSARY

ARB
Air Resources Board

BAAQMD
Bay Area Air Quality Management District

BACT
Best Available Control Technology

Basis
The underlying authority that allows the District to impose requirements.

CAA
The federal Clean Air Act

CAAQS
California Ambient Air Quality Standards

CEM
Continuous Emission Monitor

CEQA
California Environmental Quality Act

CFEP
Clean Fuel Expansion Project

CFR
The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

CO
Carbon Monoxide

Cumulative Increase
The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Cumulative increase is used to determine whether threshold-based requirements are triggered.

District
The Bay Area Air Quality Management District

dscf
Dry Standard Cubic Feet

EPA
The federal Environmental Protection Agency.

EFRT
External Floating Roof Tank

Federally Enforceable, FE
All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60 (NSPS), Part 61 (NESHAPs), Part 63 (MACT), and Part 72 (Permits Regulation, Acid Rain), including limitations and conditions contained in operating permits issued under an EPA approved program that has been incorporated into the SIP.

FP
Filterable Particulate as measured by BAAQMD Method ST-15, Particulate.

MOP

The District's Manual of Procedures.

NAAQS
National Ambient Air Quality Standards

NESHAPS
National Emission Standards for Hazardous Air Pollutants. See in 40 CFR Parts 61 and 63.

NH3
Ammonia

NOx
Oxides of nitrogen.

NSPS
Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Federal Clean Air Act, and implemented by 40 CFR Part 60 and District Regulation 10.

NSR
New Source Review. A federal program for pre-construction review and permitting of new and modified sources of pollutants for which criteria have been established in accordance with Section 108 of the Federal Clean Air Act. Mandated by Title I of the Federal Clean Air Act and implemented by 40 CFR Parts 51 and 52 and District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

Offset Requirement
A New Source Review requirement to provide federally enforceable emission offsets for the emissions from a new or modified source. Applies to emissions of POC, NOx, PM10, and SO2.

POC
Precursor Organic Compounds

PM
Particulate Matter

PM10
Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

PSD
Prevention of Significant Deterioration. A federal program for permitting new and modified sources of those air pollutants for which the District is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the Act and implemented by both 40 CFR Part 52 and District Regulation 2, Rule 2.

SCR
Selective Catalytic Reduction

SIP
State Implementation Plan. State and District programs and regulations approved by EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the Act.

SO2
Sulfur dioxide

Title V
Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

TRMP
Toxic Risk Management Plan

VOC
Volatile Organic Compounds

Units of Measure:

bhp	=	brake-horsepower
btu	=	British Thermal Unit
cfm	=	cubic feet per minute
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inches
max	=	maximum
m^2	=	square meter
min	=	minute
mm	=	million
MMbtu	=	million btu
MMcf	=	million cubic feet
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scfm	=	standard cubic feet per minute
yr	=	year

APPENDIX B

NSR Application 22904

FINAL
ENGINEERING EVALUATION
Phillips 66, San Francisco Refinery
Application #22904- Site A0016/Plant 21359

I. BACKGROUND

Phillips 66 has applied for a change of conditions for the following equipment:

S97, External Floating Roof Tank, 298K barrel capacity (Tank 100)
S261, External Floating Roof Tank, 104K barrel capacity (Tank 1010)
S425, Marine Loading Berth M1
S426, Marine Loading Berth M2

As part of the project, Phillips 66 has also requested that S14 (Unit 240 B-401 Heater) be permanently shut down and the resulting emission reductions be used for contemporaneous offsets for emission increases. Phillips 66 intends to apply for emission reduction credits (ERCs) for any remaining emissions from the S14 shutdown.

A change in conditions for the following sources is considered to be part of this project, but the fees and cumulative increase will be attributed to Application 24256, because the change was handled before completion of this application, due to the need to service a tank:

S334 External Floating Roof Tank, 180K barrel capacity (Tank 107)
S340 External Floating Roof Tank, 200K barrel capacity (Tank 108)
S439 External Floating Roof Tank, 161K barrel capacity (Tank 109)

The purpose of this application is to allow an increase in permitted throughput of crude oil at S425 and S426, Marine Loading Berths, from 30,682 barrels/day to 51,182 barrels/day on an annual average basis. A barrel is equivalent to 42 gallons. This means an increase in permitted throughput from 11,198,930 barrels/year to 18,681,430 barrels/year over the marine terminals. The reason why the refinery is asking for this increase is that less crude oil is available by pipeline. The refinery has not asked for an increase in throughput at the distillation towers at the coking unit, S300, or at S350, U267 Crude Distillation Unit.

In order to accommodate the increase at S425 and S426, increases at various crude oil tanks are also required.

Also, increasing the throughput at S425 and S426 will mean that 23 additional ships per year will deliver crude to the refinery. Emissions from the ships are subject to offsets in accordance with BAAQMD Regulation 2-2-215, but not subject to Best Available Control Technology (BACT), based on the exemption from BACT in BAAQMD Regulation 2-2-206. The facility is proposing to offset the additional ship emissions by shutting down S14, U240, B-401 Heater.

In Application 24256, the facility requested an increase from the previous throughput limits to 10 million barrels/yr (MMbbl/yr) each, so that the tanks can handle crude oil imports from the pipeline or ships even when a tank is taken out of service. Following are the previous throughput limits:

S334	6.51 MMbbl/yr
S340	7.67 MMbbl/yr
S439	3.65 MMbbl/yr

II. EMISSION CALCULATIONS

The increase in POC emissions for each tank was calculated using EPA's Tanks 4.09(d) software before and after the throughput changed. The Tanks printouts are in Appendix A.

S97
9.435 million barrel increase (396,256,560 gal/yr)
Phillips 66 is proposing a 9.435 MMbbl/yr increase at crude oil tank S97. S97 was a "grandfathered" tank. The throughput over the last three years has averaged 6.136 MMbbl/yr. The throughput limit in Condition 20989 is 70.1 MMbbl/yr.

The POC emissions increase, calculated using EPA's Tanks 4.0.9d Program, is 1,685 lb/yr.

S261
2.354 million barrel increase (98,835,660 gallons/yr)
Phillips 66 is proposing a 2.354 MMbbl/yr increase at gas oil tank S261. S261 was a "grandfathered" tank. The throughput over the last three years has averaged 3.122 MMbbl/yr. The throughput limit in Condition 20989 is 11 MMbbl/yr.

The POC emissions increase, calculated using EPA's Tanks 4.0.9d Program, is 133 lb/yr.

S425 and S426
Emissions are expected when organic liquids are pumped into a marine vessel tank. At this facility, the emissions from the ships are abated by a thermal oxidizer, A420.

In this case, crude oil will be pumped from the ships to tanks that are abated by external floating roofs. The emissions will be attributed to the tanks.

Total POC emissions increase:

S97	1,685 lb/yr
S261	133 lb/yr
Total	1,818 lb/yr or 0.909 tpy

Total POC emissions after the increase will be:

S97	5,501 lb/yr
S261	324 lb/yr
Total	5,825 lb/yr or 2.913 tpy

The increase in annual emissions of toxic air contaminants since 1987 including Sources S334, S340, and S439 is:

Pollutant	Conc. %	S97 (Tank 100)	S261 (Tank 1010)	S334 (Tank 107)	S340 (Tank 108)	S439 (Tank 109)	Total
Benzene	0.169	2.84765	0.22477	1.75	2.54	7.7	15.06242
Hexane	1.174	19.7819	1.56142	12.16	17.66	53.49	104.6533
Naphthalene	0.047	0.79195	0.06251	0.49	0.71	2.14	4.19446
Toluene	0.360	6.066	0.4788	3.73	5.41	16.4	32.0848
Xylene	0.568	9.5708	0.75544	5.88	8.54	25.88	50.62624
Ethylbenzene	0.118	2.0	0.2	1.22	1.77	5.38	10.57

The maximum increase in emissions from the ships is shown below. Ships are equipped with either auxiliary engines or boilers to move the crude oil. The maximum amount of NOx is emitted when the ships use auxiliary engines instead of boilers to move the crude oil. No restriction has been imposed on the ships to use either boilers or engines.

The maximum amount of SO2 is emitted when the ships use boilers and fuel with 1% sulfur because boilers use more fuel than auxiliary engines. (Nonetheless, NOx emissions from boilers would be less than NOx emissions from engines.)

The maximum amount of PM10 is emitted when the ships use boilers and fuel with 1% sulfur because boilers use more fuel than auxiliary engines.

The maximum amount of CO is emitted when auxiliary engines are used due to the engines' higher CO emission factor.

The maximum amount of CO2 is emitted when the ships use boilers because boilers use more fuel than auxiliary engines.

Whether a particular tanker is equipped with boilers or auxiliary engines to move the crude oil is not under the facility's control.

	Maximum Emissions Increase (ton/yr) Assuming 1% S Fuel					
	NOx	SO2	PM10	POC	CO	CO2
Ships	28.70	12.52	0.87	0.93	2.32	2,089
Tugboats	4.46	0.03	0.24	0.17	0.38	235
Total	**33.16**	**12.82**	**1.11**	**1.10**	**2.71**	**2,324**

However, the emissions of SO2 and PM10 will decrease after implementation of the 0.1% fuel sulfur standard on January 1, 2014. The cumulative increase will be based on the lower fuel sulfur standard because the plant has stated that they are not likely to make full use of the increase during 2013 and the permit will not be issued at the beginning of the year. Phillips will determine whether the cumulative increase for SO2 in 2013 is over 1.28 tpy, which is the amount calculated for every year starting 2014. If the increase is over this amount, Phillips will provide contemporaneous decreases from the kilns (S1 and S2) at carbon plant, Plant 22.

To ensure that Phillips 66 is in compliance with this obligation, a requirement for monthly reports starting with the date of issuance of the permit pursuant to Application 22904 and ending with January 1, 2014, was added to part 11 of Condition 4336. If for any reason, the requirement for 0.1% sulfur fuel is delayed, part 13 of Condition 4336 requires the facility to submit a plan to provide additional SO2 and PM10 offsets by February 28, 2014.

The ship emissions assuming that 0.1% sulfur fuel is used are shown below:

	Emissions Increase (ton/yr) Assuming 0.1% S Fuel					
	NOx	SO2	PM10	POC	CO	CO2
Ships	28.70	1.25	0.43	0.93	2.32	2,089
Tugboats	4.46	0.03	0.21	0.17	0.38	235
Total	**33.16**	**1.28**	**0.64**	**1.10**	**2.71**	**2,324**

The emissions have been calculated using emission factors from the 2009 EPA publication entitled: "Current Methodologies in Preparing Mobile Source Port-Related Emission Inventories - Final Report." The starting point for all ship emissions is the pilot's station that is 11 miles west of the Golden Gate Bridge. All vessels stop at the pilot's station, where a pilot boards each vessel before the vessel enters the San Francisco Bay.

NOx is calculated assuming that all of the ships use auxiliary engines, not boilers. SO2, PM10, POC, and CO are calculated assuming that all of the engines use boilers. These are worst-case assumptions.

The detailed calculations are in Appendix B.

Total emissions increase:

	Emissions Increase (ton/yr)					
	NOx	SO2	PM10	POC	CO	CO2
Ships	28.70	1.25	0.43	0.93	2.32	2,089
Tugboats	4.46	0.03	0.21	0.17	0.38	235
Tanks				0.91		
Total	**33.16**	**1.28**	**0.64**	**2.01**	**2.71**	**2,324**

Phillips 66 has proposed to limit the increase in emissions of SO2 and PM10 to the levels that will result when the ships burn 0.1% sulfur fuels by limiting the number of additional ships in the first year to 11 ships. Starting January 1, 2014, Phillips will be allowed to bring in 59 crude and gas oil ships in any consecutive 12-month period.

If the regulation requiring the use of 0.1% sulfur fuel is stayed for any reason, Phillips and the District will renegotiate the agreement on offsets provided.

III. CUMULATIVE INCREASE

The cumulative increase for this application will be:

	Emissions Increase (ton/yr)					
	NOx	SO2	PM10	POC	CO	CO2
Ships	28.70	1.25	0.43	0.93	2.32	2,089
Tugboats	4.46	0.03	0.21	0.17	0.38	235
Tanks				0.91		
Total	**33.16**	**1.28**	**0.64**	**2.01**	**2.71**	**2,324**

IV. OFFSETS

Phillips 66 is subject to offsets for NOx and POC, because the facility's actual emissions of NOx and POC are each over 35 tpy.

Phillips 66 is subject to offsets for SO2 and PM10, because the facility's actual emissions of SO2 and PM10 are each over 100 tpy.

Offsets are not required for CO and CO2.

The facility will supply contemporaneous offsets by shutting down S14, U240, B-401 Heater. Its capacity is 556 MMbtu/hr. The heater had been equipped with 2 continuous emission monitors for NOx. The purpose of this heater had been to supply heat for S464, Phillips 66's hydrogen plant. S14 and S464 have been shut down as of October 12, 2011. To ensure that the shutdown is permanent, a permit condition requiring shutdown of S14 will be imposed.

The facility has submitted the emissions data and fuel gas throughput data from October 1, 2008 to October 18, 2011. The baseline period is 3 years from the date of a complete application. The date of completeness of this application is March 3, 2012. For this application, the baseline period is March 4, 2009 to March 3, 2012. The detailed data is in the application folder.

Following is the baseline throughput upon which the contemporaneous offsets have been calculated:

Baseline Period	**MMbtu/yr**
3/4/09 - 3/3/10	2,965,033
3/4/10 - 3/3/11	2,211,571
3/4/11 - 3/3/12	1,677,903
Average	2,284,836

NOx

S14 operated over the limit of 0.033 lb NOx/MMbtu in BAAQMD Regulation 9-10-301. This limit is considered to be RACT. (The refinery operated in compliance because the rule allows the refinery to average all of the heaters built before January 5, 1994, and because the refinery used a small amount of interchangeable emission reduction credits in accordance with BAAQMD Regulation 2, Rule 9, for emissions above the average.) Therefore, the baseline throughput has been multiplied by the RACT emission factor to calculate the amount of offsets allowed. This is the "RACT" adjustment required by BAAQMD Regulation 2-2-201. The amount of potential contemporaneous NOx offsets calculated is 37.70 tpy, which is sufficient to offset the cumulative increase of 33.16 tpy NOx.

NOx	MMbtu/yr	NOx, lb/yr	NOx, tpy
3/4/09-3/3/10	2,965,033	97846	48.923
3/4/10-3/3/11	2,211,571	72982	36.491
3/4/11-3/3/12	1,677,903	55,371	27.685
Average	2,284,836		37.700

SO2

The refinery fuel gas (RFG) that was burned at S14 will be burned elsewhere in the refinery, so shutdown of the S14 will not result in a large decrease of SO2. However, use of the refinery fuel gas elsewhere will result in an equivalent decrease in the use of natural gas equivalent to the baseline throughput at S14. Pipeline-quality natural gas has a small amount of sulfur-0.25 grain/100 scf in the Bay Area- so there will be a small decrease in SO2.

SO2	MMbtu/yr	100 scf/yr	gr S/yr	lb S/yr	lb SO2/yr	SO2, tpy
3/4/09-3/3/10	2,965,033	28,238,413	7059603	1008.5	2017.0	1.009
3/4/10-3/3/11	2,211,571	21,062,581	5265645	752.2	1504.5	0.752
3/4/11-3/3/12	1,677,903	15,980,029	3995007	570.7	1141.4	0.571
Average	2,284,836				1,519	0.777

The amount of potential contemporaneous SO2 offsets calculated is 0.777 tpy, which is not sufficient to offset the cumulative increase of 1.28 tpy SO2. Phillips will have to supply an additional 0.503 tpy of SO2 offsets. In accordance with Regulation 2-2-410, the facility will have up to 90 days from the date of issuance to submit the offsets. A requirement to submit the offsets has been added as part 14 of Condition 4336.

PM10

The refinery fuel gas (RFG) that was burned at S14 will be burned elsewhere in the refinery, so shutdown of S14 should not result in a large decrease of PM10. However, use of the refinery fuel gas elsewhere will result in an equivalent decrease in the use of natural gas equivalent to the baseline throughput at S14. The emission factor for natural gas combustion is about a tenth of the emission factor for combustion of RFG.

PM10	MMbtu/yr	EF, lb/MMbtu	PM10, lb/yr	PM10, tpy
3/4/09-3/3/10	2,965,033	0.00723*	21437	10.719
3/4/10-3/3/11	2,211,571	0.00723*	15990	7.995
3/4/11-3/3/12	1,677,903	0.00723*	11004	6.066
Average	2,284,836			8.260

*AP-42 Table 1.4-2

The amount of potential contemporaneous PM10 offsets calculated is 8.260 tpy, which is sufficient to offset the cumulative increase of 0.64 tpy PM10.

POC

The refinery fuel gas (RFG) that was burned at S14 will be burned elsewhere in the refinery. However, use of the refinery fuel gas elsewhere will result in an equivalent decrease in the use of natural gas equivalent to the baseline throughput at S14. The emission factor for natural gas combustion is similar to the emission factor for combustion of RFG.

POC	MMbtu/yr	EF, lb/MMbtu	POC, lb/yr	POC, tpy
3/4/09-3/3/10	2,965,033	0.00524*	15537	7.768
3/4/10-3/3/11	2,211,571	0.00524*	11589	5.794
3/4/11-3/3/12	1,677,903	0.00524*	8792.2	4.396
Average	2,284,836			5.986

*AP-42 Table 1.4-2

The amount of potential contemporaneous POC offsets calculated is 5.986 tpy, which is sufficient to offset the cumulative increase of 2.01 tpy POC.

In addition, the shutdown will be used to provide offsets for the increase of 2.809 POC for Application 24256. These offsets have not yet been provided, but the contemporaneous POC offsets for the shutdown of S14 are sufficient to offset these increases.

CO

Offsets for CO are not required. Nonetheless, for the purposes of cumulative increase, any contemporaneous decrease in CO should be subtracted from the increase.

CO	MMbtu/yr	EF, lb/MMbtu	CO, lb/yr	CO, tpy
3/4/09-3/3/10	2,965,033	0.000368906	1094	0.547
3/4/10-3/3/11	2,211,571	0.000368906	816	0.408
3/4/11-3/3/12	1,677,903	0.000368906	618	0.309
Average	2,284,836			0.421

*Emission factor based on source test results of 0.5 ppm CO

CO2e

A calculation of CO2e for cumulative increase and offsets for CO2e is not required at this time. Nonetheless, the net decrease of CO2 from the S3 shutdown will be shown here. In this case, CO2e would include CO2, CH4, and N2O from natural gas combustion. Only CO2 has been calculated because the emissions and global warming potential of the CH4 and N2O emitted are insignificant.

CO2	MMbtu/yr	EF, lb/MMbtu	CO2, lb/yr	CO2, tpy
3/4/09-3/3/10	2,965,033	117	346908900	173454
3/4/10-3/3/11	2,211,571	117	258753807	129377
3/4/11-3/3/12	1,677,903	117	178079230	89040
Average	2,284,836			130624

*Emission factor from 40 CFR 98, Table C-1.

V. TOXIC SCREENING ANALYSIS

A toxic risk screening analysis was prepared for the project. Most of the risk is attributed to the diesel particulate emitted by the ship engines. A maximum cancer risk of 7.2 in a million to the maximally exposed resident and 1.5 in a million to the maximally exposed worker was calculated assuming an increase of 1.11 tpy of diesel particulate. The non-cancer Hazard Quotient was 0.003 for the maximally exposed resident and 0.001 for the maximally exposed worker. However, in 2014 the additional particulate emitted will decrease from 1.11 tpy to 0.64 tpy. Since the risk is linear, the cancer risk to the maximally exposed resident will drop from 7.2 to 4.2 in a million.

The risk for the tanks by themselves was calculated to be 0.08 chances in a million; the maximum project chronic hazard index was 0.00006; and the maximum project acute hazard index was 0.00004.

In addition, the risk from all ocean-going vessels that stop at the Phillips 66 will drop by approximately 55% because all vessels will be required to use the 0.1% sulfur fuel.

VI. BEST AVAILABLE CONTROL TECHNOLOGY

Tanks
The POC emissions at S261 will be more than 10 lb/day after the throughput increase, so the tank will be subject to BACT in accordance with BAAQMD Regulation 2-2-301. For external floating roof tanks storing crude oil, the District's BACT/TBACT Workbook Guideline #167.1.2 dated 9/19/11 states that BACT is the following:

POLLUTANT	BACT 1. Technologically Feasible/ Cost Effective 2. Achieved in Practice	TYPICAL TECHNOLOGY
POC	1. Vapor recovery system w/ an overall system efficiency >98%	1. Thermal Incinerator; or Carbon Adsorber; or Refrigerated Condenser; or BAAQMD approved equivalent
	2. BAAQMD Approved roof w/ liquid mounted primary seal and zero gap secondary seal, all meeting design criteria of Reg. 8, Rule 5. Also, no ungasketed roof penetrations, no slotted pipe guide pole unless equipped with float and wiper seals, and no adjustable roof legs unless fitted w/ vapor seal boots or equivalent. Additionally, a dome is required for tanks that meet all of the following: 1) capacity greater than or equal to 19,815 gallons 2) located at a facility with greater than 20 tpy VOC emissions since the year 2000 and 3) storing a material with a vapor pressure equal to or greater than 3 psia (except for crude oil tanks that are permitted to contain more than 97% by volume crude oil).	2. BAAQMD Approved Roof and Seal Design

A "zero-gap seal" is a colloquial term that means a seal that complies with BAAQMD Regulation 8-5-322.5. The tank seals will meet BACT. Since the tanks will hold crude oil, a dome will not be required.

The emissions at S97, Gas Oil Tank, will be less than 10 lb/day, so S97 is not subject to BACT at this time.

There will be no increase in emissions at S425 and S426, Marine Terminals, so they are not subject to BACT.

In accordance with BAAQMD Regulation 2-2-206, the ships are not subject to BACT because they are cargo carriers.

VIII. STATEMENT OF COMPLIANCE

CEQA
The project is subject to CEQA because it is not ministerial and is not exempt from CEQA per BAAQMD Regulation 2-1-312. The District was the CEQA Lead Agency for this project. Therefore, the District prepared an initial study and concluded that there would be no adverse environmental effects. A notice of the initial study and negative declaration were published in the West County Times on January 28, 2013. The end of the public comment period was February 19, 2013. No comments were received.

The negative declaration received final approval on March 4, 2013.

Regulation 2-1-412, Public Notice, Schools:
This project is not located within 1,000 feet of the nearest public school and is therefore not subject to the public notification requirements of Regulation 2-1-412.

Regulation 8, Rule 5, Storage of Organic Liquids
S97 and S261 will comply with BAAQMD Regulation 8, Rule 5. Section 301 requires an internal or external floating roof for tanks with a volume over 39,626 gal that hold liquids with a vapor pressure between 0.5 psia and 11 psia. These are external floating roof tanks.

The tank will comply with the requirements in Section 304 to have primary seals that meet the requirements of Section 321 and secondary seals that meet the requirements of Section 322. The floating roof will rest on the surface of the liquid tank contents and must be in good operating condition. The facility will comply with the requirement for no liquid tank contents on top of either the primary or secondary seal, or on top of the floating roof (this requirement does not apply to liquid that clings to the inside tank walls as the tank is drained, or to liquid that drips from the tank walls onto the seals). The shell will be in good operating condition with no liquid leakage through the shell. The tank will not be operated with organic liquid tank contents in any tank pontoon unless the following conditions are met:

- Within 48 hours of discovery of organic liquid in a pontoon, all lids or other openings on the affected pontoon shall be sealed and maintained in a gas tight condition; and

- The next time the tank is removed from service, repairs shall be made on all pontoon leaks on that tank.

The tank will comply with the tank fitting requirements in Section 320, the primary seal requirements in Section 321, and the secondary seal requirements in Section 322.

The above requirements are already in the Title V permit for S261.

Regulation 8, Rule 44, Marine Tank Vessel Operations
The marine terminal is subject to the Regulation 8, Rule 44, and is expected to continue to comply with the regulation .

NSPS, Subparts K, Ka, and Kb, NESHAPS
S261 was built in 1958 and is not subject to any of the NSPS for tanks in 40 CFR 60, Subparts K, Ka, or Kb.

S97 was built in 1969 and is not subject to any of the NSPS for tanks in 40 CFR 60, Subparts K, Ka, or Kb due to its age and because it holds a fluid with a vapor pressure that is less than 0.5 psia.

The proposed increase in emissions is not a modification for the purposes of NSPS Subparts K, Ka, and Kb. This determination is based on the October 17, 1997, letter from EPA's George Czerniak to Daniel R. Guido entitled " Storage Vessels for Volatile Organic Liquid (VOL), which states that an increase in throughput does not make a tank subject to the latest NSPS. George Czerniak states that the decision is based on 40 CFR 60.14, Modifications, section (e), which in turn states that "an increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility" is not a modification. Therefore, this increase in throughput does not make S97 and S261 subject to NSPS Subpart Kb.

Because S97 and S261 are not subject to NSPS, they are subject to 40 CFR 63, Subpart CC, National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries, which makes the tanks subject in turn to 40 CFR 63, Subpart G, National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater.

Regulation 2, Rule 6, Major Facility Review
This facility is subject to Regulation 2, Rule 6 and requires a minor revision to the Title V permit in accordance with section 2-6-404.4. The minor revision will be handled in Application #22906. The changes proposed in this application are not significant as defined by section 2-6-226, since the changes are not considered a major modification under 40 CFR Parts 51 or 52 (PSD) nor a modification under 40 CFR Parts 60 (NSPS),

63 (NESHAPs). The change will result in an emissions increase, but the increase will be small, less than 3 tpy of POC. The change will not be a significant change or relaxation of monitoring, reporting, or recordkeeping nor will it allow the facility to avoid an applicable requirement. The change is not a case-by-case determination of any emission limit or standard or facility-specific determination or incorporation of any requirement promulgated by EPA.

The increase in emissions from the ships is not a consideration when determining that a revision is a major modification under 40 CFR Parts 51 or 52 (PSD) nor a modification under 40 CFR Parts 60 (NSPS), 63 (NESHAPs), because these regulations do not apply to cargo carriers.

In accordance with section 2-6-215, this change is a minor permit revision.

IX. CONDITIONS

Parts A.1b, F.1b, and G.1 of Condition 1694 have been amended to delete S14, Heater. Part F.1b contained a combined limit for S9, S10, S11, S12, S13, and S14 of 877.3 MMbtu/hr. The limit has been reduced by 260.9 MMbtu/hr to 616.4 MMbtu/hr for the remaining sources (S9, S10, S11, S12, and S13) based on the three year baseline. A condition requiring the permanent shutdown of S14 has been added to part F.

CONDITION 1694
CONDITIONS FOR COMBUSTION SOURCES AND SO2 CAP, EXCEPT FOR GAS TURBINES, DUCT BURNERS, ENGINES, AND S45, HEATER (U246 B801 A/B)

A. Heater Firing Rate Limits and General Requirements

1a. Each heater listed below shall not exceed the indicated daily firing rate limit (based on higher heating value of fuel), which are considered maximum sustainable firing rates. The indicated hourly firing rate is the daily limit divided by 24 hours and is the basis for permit fees and is the rate listed in the District database.

District Source Number (MMbtu/hr)	Refinery ID Number	Daily Firing Limit (MMbtu/day)	Hourly Firing Rate
S7	U231/B103	1,536	64
S21	U244/B507	194.4	8.1

[Regulation 2-1-234.3]

1b. Each heater listed below shall not exceed the indicated daily firing rate limit (based on higher heating value of fuel), which are considered maximum sustainable firing rates. The indicated hourly firing rate is the daily limit divided by 24 hours and is the basis for permit fees and is the rate listed in the District database.

District Source Number	Refinery ID Number	Daily Firing Limit (MM BTU/day)	Hourly Firing Rate (MM BTU/hr)
S2	U229/B301	528	22
S3	U230/B201	1,272	53
S4	U231/B101	2,304	96
S5	U231/B102	2,496	104
S9	U240/B2	1,464	61
S10	U240/B101	5,352	223
S11	U240/B201	2,592	108
S12	U240/B202	1,008	42
S13	U240/B301	4,656	194
~~S14~~	~~U240/B401~~	~~13,344~~	~~556~~
S15 thru S19	U244/B501 thru B505	5,754	239.75
S20	U244/B506	552	23
S22	U248/B606	744	31
S29	U200/B5	2,472	103
S30	U200/B101	1,200	50
S31	U200/B501	480	20
S43	U200/B202	5,520	230
S44	U200/B201	1,104	46
S351	U267	2,280	95
S336	U231/B104	2,664	111
S337	U231/B105	816	34
S371/372	U228/B520 and B521	1,392	58
		[Regulation 2-1-301]	

1c. Each heater listed below shall not exceed the indicated daily firing rate limit (based on higher heating value of fuel), which are considered maximum sustainable firing rates. The indicated hourly firing rate is the daily limit divided by 24 hours and is the basis for permit fees and is the rate listed in the District database.

District Source Number	Refinery ID Number	Daily Firing Limit (MMbtu/day)	Hourly Firing Rate (MMbtu/hr)
S438	U110	6,000	250
		[Cumulative Increase]	

2a. All sources shall use only refinery fuel gas and natural gas as fuel, EXCEPT for S438 which may also use pressure swing adsorption (PSA) off gas as fuel, and

EXCEPT for S3 and S7 which may also use naphtha fuel during periods of natural gas curtailment, test runs, or for operator training. [Regulation 9-1-304 (sulfur content), Regulation 2, Rule 1, Consent Decree Case No. 05-0258, DATE: 1/27/05] Amended Application 12931

2b. Sources S3 and S7 are permitted to use naphtha fuel only during periods of natural gas curtailment, test runs, or for operator training. These sources shall be monitored for visible emissions during tube cleaning. If any visible emissions are detected when the operation commences, corrective action shall be taken within one day, and monitoring shall be performed after the corrective action is taken. If no visible emissions are detected, monitoring shall be performed on an hourly basis. [Regulation 2-6-409.2, Consent Decree Case No. 05-0258, DATE: 1/27/05] Amended Application 12931

2c. Sources S3 and S7 are permitted to use naphtha fuel only during periods of natural gas curtailment, test runs, or for operator training. These sources shall be monitored for visible emissions before each 1 million gallons of liquid fuel is combusted at each source. If an inspection documents visible emissions, a Method 9 evaluation shall be completed within 3 working days, or during the next scheduled operating period if the specific unit ceases firing on liquid fuel within the 3 working day time frame. [Regulation 2-6-409.2, Consent Decree Case No. 05-0258, DATE: 1/27/05]. Amended Application 12931

3a. The refinery fuel gas shall be tested for total reduced sulfur (TRS) concentration by GC analysis at least once per 8 hour shift (3 times per calendar day). At least 90% of these samples shall be taken each calendar month. No readable samples or sample results shall be omitted. TRS shall include hydrogen sulfide, methyl mercaptan, methyl sulfide, dimethyl disulfide. As an alternative to GC TRS analysis, the fuel gas total sulfur content may be measured with a dedicated total sulfur analyzer (Houston Atlas or equivalent), and TRS concentration estimated based on the total sulfur/TRS ratio, with the TRS estimate increased by a 5% margin for conservatism. The total sulfur/TRS ratio shall be determined at least on a monthly basis through GC analyses of total sulfur and TRS values, and the most recent ratio shall be used to estimate TRS concentration. [SO2 Bubble]

3b. The average of the 3 daily refinery fuel gas TRS sample results shall be reported to the District in a table format each calendar month, with a separate entry for each daily average. Sample reports shall be submitted to the District within 30 days of the end of each calendar month. Any omitted sample results shall be explained in this report. [SO2 Bubble]

4. Emissions of SO2 shall not exceed 1,612 lb/day on a monthly average basis from non-cogeneration sources burning fuel gas or liquid fuel. This limit shall not include S45, Heater (U246) and shall not include any engine. [SO2 Bubble]

5. The following records shall be maintained in a District-approved log for at least 5 years and shall be made available to the District upon request:

a. Daily and monthly records of the type and amount of fuel combusted at each source listed in Part A.1. [Regulation 2, Rule 1]
b. TRS sample results as required by Part A.3 [SO2 Bubble]
c. SO2 emissions as required by Part A.4 [SO2 Bubble]
d. The operator shall keep records of all visible emission monitoring required by Part 2b, shall identify the person performing the monitoring and shall describe all corrective actions taken [Regulation 2-6-409.2]
e. The operator shall keep records of all visible emission monitoring required by Part 2c, of the results of required visual monitoring and Method 9 evaluations on these sources, shall identify the person performing the monitoring and shall describe all corrective actions taken.
[Regulation 2-6-409.2]

6. Sources listed below are affected facilities under NSPS Subpart J and are subject to the application requirements of NSPS Subparts A and J for fuel gas combustion devices. [Consent Decree Case No. 05-0258, DATE: 1/27/05]

S2 U229/B301
S3 U230/B201
S4 U231/B101
S5 U231/B102
S7 U231/B103
S8 U240/B1
S9 U240/B2
S10 U240/B101
S11 U240/B201
S12 U240/B202
S13 U240/B301
S14 U240/B401
S15-S19 U244/B501-B505
S20 U244/B506
S21 U244/B507
S22 U244/B606
S29 U200/B5
S30 U200/B101
S31 U200/B501

B. S351 PREHEATER

1. The S351 heater shall be abated by the A6 SCR unit at all times, except that S351 may operate without SCR abatement on a temporary basis for periods of planned or emergency maintenance. A District-approved NOx CEM shall monitor and record the S351 NOx emission rate whenever S351 operates without abatement. All emission limits applicable to S351 shall remain in effect whether or not it is operated with SCR abatement.
[BACT, Cumulative Increase]

2. The concentration of NOx from S351 shall not exceed 20 ppmv @ 3% oxygen, dry, averaged over any consecutive 3 hour period. This limit shall not apply during a

startup period which shall not exceed 12 hours. The startup exemption period may last up to 24 hours to allow the proper ammonia injection temperature to be reached provided that the temperature is monitored at least once per hour and that ammonia injection begins within 2 hours of reaching the proper temperature. This limit shall also not apply during a shutdown period which shall not exceed 9 hours. [BACT, Cumulative Increase]

3. The following instruments shall be installed and maintained to demonstrate compliance with Part 2:

   a. continuous NOx analyzer/recorder
   b. continuous O2 or CO analyzer/recorder[BACT, Cumulative Increase]

C. S371 AND S372 FURNACES

1. The S371 furnace shall be abated by the A16 SCR unit at all times, and the S372 furnace shall be abated by the A17 SCR unit at all times, except that S371 and S372 may operate without SCR abatement on a temporary basis for periods of planned or emergency maintenance. A District-approved NOx CEM shall monitor and record the NOx emission rates from these heaters whenever they operate without abatement. All emission limits applicable to S371 and S372 shall remain in effect whether or not they are operated with SCR abatement. [BACT, Cumulative Increase]

2. The concentration of NOx from S371 and S372 shall not exceed 20 ppmv, dry, corrected to 3% oxygen, averaged over any consecutive 3 hour period. This limit shall not apply during a startup period, which shall not exceed 12 hours. The startup exemption period may last up to 24 hours to allow the proper ammonia injection temperature to be reached provided that the temperature is monitored at least once per hour and that ammonia injection begins within 2 hours of reaching the proper temperature. This limit shall also not apply during a shutdown period which shall not exceed 9 hours. [BACT, Cumulative Increase]

3. The concentration of CO emissions from S371 and S372 shall not exceed 50 ppmv, dry, corrected to 3% oxygen, averaged over any consecutive 3 hour period. This limit shall not apply during a startup period, which shall not exceed 12 hours. The startup exemption period may last up to 24 hours to allow the proper ammonia injection temperature to be reached provided that the temperature is monitored at least once per hour and that ammonia injection begins within 2 hours of reaching the proper temperature. This limit shall also not apply during a shutdown period, which shall not exceed 9 hours.

   [BACT, Cumulative Increase]

D. S43 Coking Furnace (Unit 200 B-202) and S44 (Unit 200 B-201 PCT Reboil Furnace)

1. Nitrogen oxide emissions from the S43 Coking Furnace (Unit 200 B-202) shall be abated by Selective Catalytic Reduction Unit A4 at all times, except that

S43 may operate without SCR abatement on a temporary basis for periods of planned or emergency maintenance. A District-approved NOx CEM shall monitor and record the S43 NOx emission rate whenever S43 operates without abatement. All emission limits applicable to S43 shall remain in effect whether or not it is operated with SCR abatement.
[BACT, Cumulative Increase]

2. The nitrogen oxides in the flue gases for S43, Unit 200 B-202 Coking Furnace and S44, Unit 200 B-201 PCT Reboil Furnace shall not exceed 40 ppmdv corrected to 3% oxygen, dry, over any consecutive 8 hour period. This limit shall not apply during a startup period which shall not exceed 12 hours. The startup exemption period may last up to 24 hours to allow the proper ammonia injection temperature to be reached provided that the temperature is monitored at least once per hour and that ammonia injection begins within 2 hours of reaching the proper temperature. This limit shall also not apply during a shutdown period which shall not exceed 9 hours.
[BACT, Cumulative Increase]

3. The carbon monoxide in the flue gas for S43, Unit 200 B-202 Coking Furnace and S44, Unit 200 B-201 PCT Reboil Furnace shall not exceed 50 ppmdv corrected to 3% oxygen averaged over any calendar month. This condition shall not apply during start-up and shutdown. [BACT, Cumulative Increase]

4. Instruments shall be installed and operated to continuously monitor the percentage of oxygen and the concentration of nitrogen oxides from the following sources: S43, Unit 200 B-202 Coking Furnace and S44, Unit 200 B-201 PCT Reboil Furnace.
[BACT, Cumulative Increase]

E. S438 FURNACE

1. The S438 furnace shall be abated by the A46 SCR unit at all times, except that S438 may operate without SCR abatement on a temporary basis for periods of planned or emergency maintenance. A District-approved NOx CEM shall monitor and record the S438 NOx emission rate whenever S351 operates without abatement. All emission limits applicable to S438 shall remain in effect whether or not it is operated with SCR abatement.
[BACT, Cumulative Increase]

2. Total fuel fired in S438 shall not exceed 2.19 E 12 btu in any rolling consecutive 365 day period. [Cumulative Increase]

3. Pressure swing adsorption (PSA) off gas used as fuel at S438 shall not exceed 1.0 ppm (by weight) total reduced sulfur (TRS). TRS shall include hydrogen sulfide, methyl mercaptan, methyl sulfide, dimethyl disulfide. [BACT, Cumulative Increase]

4. The following emission concentration limits from S438 shall not be exceeded. These limits shall not apply during startup periods not exceeding 24 hours (72 hours when drying refractory or during the first startup following catalyst replacement) and shutdown periods not exceeding 24 hours. The District may approve other startup and shutdown durations.

   NOx: 7 ppmv @ 3% oxygen, averaged over any 1 hour period
   CO: 32 ppmv @ 3% oxygen, averaged over any calendar day
   POC: 0.0023 lb/MMbtu of fuel used [BACT, Cumulative Increase]

5. The concentration of TRS in the blended fuel gas shall not exceed 14 ppmv averaged over any calendar month. [SO2 bubble, Cumulative Increase]

6. Daily records of the type and amount of fuel combusted at S438 and of the TRS and hydrogen sulfide concentration in the blended fuel gas, and monthly records of average blended fuel gas TRS concentration, shall be maintained for at least five years and shall be made available to the District upon request. [Cumulative Increase]

7. No later than 90 days from the startup of S438, the owner/operator shall conduct District-approved source tests to determine initial compliance with the limits in Part 4 for NOx, CO and POC. The owner/operator shall conduct the source tests in accordance with Part 8. The owner/operator shall submit the source test results to the District staff no later than 60 days after the source test. [BACT, Cumulative Increase]

8. The owner/operator shall obtain approval for all source test procedures from the District's Source Test Section prior to conducting any tests. The owner/operator shall comply with all applicable testing requirements for continuous emissions monitors as specified in Volume V of the District's Manual of Procedures. The owner/operator shall notify the District's Source Test Section, in writing, of the source test protocols and projected test dates at least 7 days prior to testing. [BACT, Cumulative Increase]

F. S2, S3, S4, S5, S7, S9, S10, S11, S12, S13, ~~S14~~Heaters

1b. Total fuel firing at Unit 240 (S9, S10, S11, S12, S13~~, S14~~) shall not exceed ~~877.3~~ 616.4 MMbtu/hr (based on higher heating value) averaged over any consecutive 12 month period. [Cumulative Increase]

~~[Part 1b will be effective after S8 is removed from service pursuant to Application 13424.]~~

2. Total fuel fired at the MP-30 Complex, including Unit 229 (S2), Unit 230 (S3) and Unit 231 (S4, S5, S7) shall not exceed 346.5 MMbtu/hr (based on higher heating value) averaged over any consecutive 12 month period. [Cumulative Increase]

3. Monthly records of the fuel fired at sources in Parts 1 and 2 shall be kept in a District-approved log for at least 5 years and shall be made available the District upon request.
[Cumulative Increase]

4. The owner/operator shall not exceed the following NOx emission limits as measured by NOx CEMs:
   d. S10: 0.015 lb NOx per MMbtu heat input based on a 12 consecutive month average.
   e. S13: 0.015 lb NOx per MMbtu heat input based on a 12 consecutive month average.
   f. S15, S16, S17, S18 and S19 combined: 0.015 lb NOx per MMbtu heat input based on a 12 consecutive month average. [Basis: ConocoPhillips-EPA Consent Decree Case No. H-05-0258]

5. The owner/operator shall permanently shut down S14, (Unit 240 B-401) Heater to provide offsets to allow the throughputs in Condition 4336, part 7, at S425 and S426, Marine Terminals. [BAAQMD Regulations 2-2-302, 2-2-303]

G. Regulation 9-10 Startup / Shutdown Provisions [Basis: 9-10-301]

For determining compliance with Regulation 9-10-301, the contribution of each affected unit that is in a startup or shutdown condition shall be based on the methods described in 9-10-301.1, and the contribution of each affected unit that is in an out of service condition shall be based on the methods described in 9-10-301.2. Low-firing conditions (no higher than 20% of a unit's rated capacity), including refractory dryout periods, shall be considered out of service conditions subject to the 30-day averaging procedure in Regulation 9-10-301.2, including the 60-day annual limit for this procedure.

1. ~~Heaters S14 (Unit 240, B-401) and~~ Heater S44 (Unit 200, B-201) shall be considered to be in normal operation whenever ~~they have~~ it has detectable fuel flow, and shall be considered to be out of service for the purpose of Regulation 9-10-301 whenever it has ~~they have~~ undetectable fuel flow.

2. For heaters S43 (Unit 200, B-202), S351 (Unit 267, B-601/602) and S371/372 (Unit 228, B-520/521), the durations of startups, shutdowns and refractory dryout periods are defined in Condition 1694, Part D.2 (S43), Part B.2 (S351) and Part C.2 (S371, S372).

3. For heaters S10 (Unit 240, B-101) and S15 through S19 (Unit 244, B-501 through B-505), the duration of startups, shutdowns and low-firing periods are defined as follows:

   a. startup and shutdown periods are not to exceed 24 hours
   b. low-firing periods are not to exceed 72 hours

4. For heater S13 (Unit 240, B-301), the duration of startups, shutdowns and low-firing periods are defined as follows:

a. startup and shutdown periods are not to exceed 72 hours
b. low-firing periods are not to exceed 72 hours

5. For heaters with no CEMS:

S2 (Unit 229, B-301)
S3 (Unit 230, B-201)
S4 (Unit 231, B-101)
S5 (Unit 231, B-102)
S7 (Unit 231, B-103)
S9 (Unit 240, B-2)
S11 (Unit 240, B-201)
S12 (Unit 240, B-202)
S20 (Unit 244, B-506)
S22 (Unit 248, B-606)
S29 (Unit 200, B-5)
S30 (Unit 200, B-101)
S31 (Unit 200, B-501)
S336 (Unit 231, B-104)
S337 (Unit 231, B-105)

startups, shutdowns, and out of service conditions shall each not exceed 5 days in succession at each source.

CONDITION 4336
Conditions for S425, S426**,** Marine Loading Berths

1. For each loading event of "regulated organic liquid", A420 shall be operated with a temperature of at least 1300 degrees F during the first 15 minutes of the loading operation. After the initial 15 minutes of loading, the A420 temperature shall be at least 1400 degrees F. [Cumulative Increase]

2. Instruments shall be installed and maintained to monitor and record the following:

a. Static pressure developed in the marine tank vessel
b. A420 temperature.
c. Hydrocarbons and flow to determine mass emissions or a concentration measurement alone if it is demonstrated to the satisfaction of the APCO that concentration alone allows verification of compliance, or
d. Any other device that verifies compliance, with prior approval from the APCO. [Cumulative Increase]

3. A "regulated organic liquid" shall not be loaded from this facility into a marine tank vessel within the District whenever A420 is not fully operational. A420 must be maintained to be leak free, gas tight, and in good working order. For the purposes of this condition, "operational" shall mean the system is achieving the reductions required by Regulation 8, Rule 44; "regulated organic liquids" include

gasoline, gasoline blendstocks, aviation gasoline and JP-4 aviation fuel and crude oil. [Cumulative Increase]

4. A leak test shall be conducted on all vessels loading under positive pressure prior to loading more than 20% of the cargo. The leak test shall include all vessel relief valves, hatch cover, butterworth plates, gauging connections, and any other potential leak points.
[Cumulative Increase]

5. Loading pressure shall not exceed 80% of the lowest relief valve set pressure of the vessel being loaded. [Cumulative Increase]

6a. No more than 25,000 barrels per day of gasoline, naphtha and C5/C6 shall be shipped across the wharf on an annual average basis.
[Cumulative Increase]

1. Deleted Application 13690

2. When barges are used to lighter crude oil, the volume of oil lightered during any reporting period shall be multiplied by a factor of 0.42 and included in the shipping totals to determine compliance with the throughput limits. The vessel Exxon Galveston is considered a ship for the purposes of this condition.

6b. The maximum loading rate at any time at both S425 and S426 shall not exceed 20,000 barrels per hour to prevent overloading the A420 oxidizer. [Cumulative Increase]

7. The owner/operator shall not receive more than ~~30,682~~51,182 bbl per day of crude oil and/or gas oil delivered by tanker, barge or ship at the Marine Terminal (S425, S426) on a 12 month rolling average basis. In addition, no more than 59 tankers or ships shall deliver crude and/or gas oil to the Marine Terminal in any 12 consecutive months. (Cumulative increase, 2-1-403, Offsets)

8. All throughput records required to verify compliance with Parts 6 and 7, including hourly loading rate records (total for S425, S426), monthly crude oil receipt records, and maintenance records required for A420, which are subject to Regulation 8, Rule 44, shall be kept on site for at least 5 years and made available to the District upon request. [Cumulative Increase]

9. The destruction efficiency of the A420 control system shall be at least 98.5% by weight over each loading event for gasoline, gasoline blending stocks, aviation gas, aviation fuel (JP-4 type), and crude oil. [BACT]

10. The purpose of part 10 is to implement an alternative monitoring plan to assure compliance with the H2S limit in 40 CFR 60.104(a)(1) at A420, Thermal Oxidizer. This part will apply whenever A420 is used to comply with BAAQMD Regulation 8, Rule 44, and whenever A420 is used to burn fuel gas as defined by 40 CFR

60.101(d). To ensure that the thermal oxidizer is not used to burn fuel gas that is high in H2S, the following activities are not allowed at the terminal: ballasting, cleaning, inerting, purging, and gas freeing. The owner/operator shall perform the following monitoring: One detection tube sampling shall be conducted on the vapors collected during the event for each marine vessel tank that is affected. The detector tube ranges shall be 0-10/0-100 ppm (N=10/1) unless the H2S level is above 100 ppm. If the H2S level is above 100 ppm, the owner/operator shall use a detection tube with a 0-500 ppm range. The owner/operator shall use ASTM Method 4913-00, Standard Practice for Determining Concentration of Hydrogen Sulfide by Reading Length of Stain, Visual Chemical Detectors. The owner/operator shall maintain records of the H2S detection tube test data for five years from the date of the record. In addition, the owner/operator shall monitor at least once every calendar day that the thermal oxidizer is used. Within 8 months of approval of this part pursuant to Application 13691, the owner/operator shall submit the first six months of results of the H2S analysis to the District's Engineering and Enforcement and Compliance Departments for review. [40 CFR 60.13(i), BAAQMD Regulation 2-6-501]

11. During calendar year 2013, if more than 30,682 bbl per day of crude oil and/or gas oil are delivered by tanker, barge or ship at the Marine Terminal (S425, S426) on a 12 month rolling average basis, SO_2 emissions reductions will be provided as described below.
    - SO_2 emissions at the Carbon Plant (BAAQMD Plant A0022) sources S1 and S2 will be reduced from the 3 year average of 7,605 lb/d SO_2 by an amount equal to or greater than the calculation below;
    - 1,115 lb SO_2 per ship. One (1) ship assumed for every 325,000 bbl, or fraction thereof, of crude and/or gas oil delivered above the 30,682 bbl/d (11,198,930 bbl per 12 months) limit;

    During calendar year 2013, Phillips 66 will submit a monthly report to BAAQMD that includes the following information:
    - rolling 12-month crude and/or gas oil average volume delivered to the Marine Terminal for that month;
    - if the rolling 12-month average volume that month is above 30,682 bbl/d, the SO_2 emissions requiring reduction from ships calculated using the SO_2 emission estimation methodology above;
    - Carbon Plant S1 and S2 SO_2 emissions during that month with analysis showing reduction below baseline emissions of 7,605 lb/d SO2. [2-2-303]

12. During calendar year 2013, the owner/operator shall limit the number of additional ships to 11 to ensure that the additional emissions of PM10 during 2013 do not exceed 0.64 tons. [2-2-303]

13. If the requirement for 0.1% sulfur fuel in CCR, Title 13, Division 3, Chapter 5.1, Section 2299.2, Fuel Sulfur and Other Operational Requirements for Ocean-Going Vessels Within California Waters and 24 Nautical Miles of the California Baseline is stayed for any reason, the owner/operator shall submit a plan by February 28, 2014, to the BAAQMD Engineering Division to supply SO2 and PM10 offsets to offset the increase in SO2 and PM10 emissions or to offer other

contemporaneous reductions. The plan will be subject to BAAQMD approval. [2-2-303]

14. Within 90 days of issuance of the permit to operate pursuant to Application 22904, the owner/operator shall supply 0.503 tons of SO2 offsets. [2-4-410]

This condition formerly applied to S97 and S261:

CONDITION 20989

A. THROUGHPUT LIMITS
The following limits are imposed through this permit in accordance with Regulation 2-1-234.3. Sources require BOTH hourly/daily and annual throughput limits (except for tanks and similar liquid storage sources, and small manually operated sources such as cold cleaners which require only annual limits). Sources with previously imposed hourly/daily AND annual throughput limits are not listed below; the applicable limits are given in the specific permit conditions listed above in this section of the permit. Also, where hourly/daily capacities are listed in Table II-A, these are considered enforceable limits for sources that have a New Source Review permit. Throughput limits imposed in this section and hourly/daily capacities listed in Table II-A are not federally enforceable for grandfathered sources. Grandfathered sources are indicated with an asterisk in the source number column in the following table. Refer to Title V Standard Condition J for clarification of these limits.

In the absence of specific recordkeeping requirements imposed as permit conditions, monthly throughput records shall be maintained for each source.

source number	hourly / daily throughput limit	annual throughput limit (any consecutive 12-month period unless otherwise specified)
~~*97~~	~~NA for tank~~	~~1.1 E 7 bbl~~
~~*261~~	~~NA for tank~~	~~7.01 E 7 bbl~~

S14 has been deleted from part 1 of Condition 21235:

CONDITION 21235

Regulation 9-10 Refinery-Wide Compliance

CONDITIONS FOR SOURCES S2, S3, S4, S5, S7,-S9, S10, S11, S12, S13, ~~S14,~~ S15, S16, S17, S18, S19, S20, S22, S29, S30, S31, S43, S44, S336, S337, S351, S371, S372

1. The following sources are subject to the refinery-wide NOx emission rate and CO concentration limits in Regulation 9-10: [Regulation 9-10-301 and 305]

S#	Description	NOx CEM
2	U229, B-301 Heater	No
3	U230, B-201 Heater	No
4	U231, B-101 Heater	No
5	U231, B-102 Heater	No
7	U231, B-103 Heater	No
9	U240, B-2 Boiler	No
10	U240, B-101 Heater	Yes
11	U240, B-201 Heater	No
12	U240, B-202 Heater	No
13	U240, B-301 Heater	Yes
~~14~~	~~U240, B-401 Heater~~	~~Yes~~
15	U244, B-501 Heater	Yes
16	U244, B-502 Heater	Yes
17	U244, B-503 Heater	Yes
18	U244, B-504 Heater	Yes
19	U244, B-505 Heater	Yes
20	U244, B-506 Heater	No
22	U248, B-606 Heater	No
29	U200, B-5 Heater	No
30	U200, B-101 Heater	No
31	U200, B-501 Heater	No
43	U200, B-202 Heater	Yes
44	U200, B-201 PCT Reboil Furnace	Yes
336	U231 B-104 Heater	No
337	U231 B-105 Heater	No
351	U267 B-601/602 Tower Pre-Heaters	Yes
371	U228 B-520 (Adsorber Feed) Furnace	Yes
372	U228 B-521 (Hydrogen Plant) Furnace	Yes

CONDITION 25477

For Source S97 (Tank 100)

1. The total throughput of crude oil shall not exceed 15.571 million barrels in any rolling continuous 12 month period. The tank shall only store crude oil. [BACT, Cumulative Increase]

2. The owner/operator shall operate S97 with closed, gasketed covers on all tank openings except pressure relief valves and vacuum breaker valves. The owner/operator shall equip S97 with a BAAQMD approved roof with liquid mounted primary seal that meets the design criteria of BAAQMD Regulation 8-5-321.3 and secondary seal that meets the design criteria of BAAQMD Regulation 8-5-322.5. The owner/operator shall ensure that there are no ungasketed roof penetrations, no slotted pipe guide poles unless equipped with float and wiper seals, and no adjustable roof legs unless fitted with vapor seal boots or equivalent. [BACT, Cumulative increase]

3. Monthly records of the throughput of each material processed at this tank shall be kept in a District-approved log for at least 5 years and shall be made available to the District upon request. [Cumulative Increase]

CONDITION 25478
For Source S261 (Tank 1010)

1. The total throughput of gas oil shall not exceed 5.476 million barrels in any rolling continuous 12 month period. The tank shall only store gas oil, naphtha, or distillate oil. [Cumulative Increase]

2. The owner/operator shall operate S261 with closed, gasketed covers on all tank openings except pressure relief valves and vacuum breaker valves. The owner/operator shall equip S261 with a BAAQMD approved roof with liquid mounted primary seal that meets the design criteria of BAAQMD Regulation 8-5-321.3 and secondary seal that meets the design criteria of BAAQMD Regulation 8-5-322.5. The owner/operator shall ensure that there are no ungasketed roof penetrations, no slotted pipe guide poles unless equipped with float and wiper seals, and no adjustable roof legs unless fitted with vapor seal boots or equivalent. [Cumulative increase]

3. Monthly records of the throughput of each material processed at this tank shall be kept in a District-approved log for at least 5 years and shall be made available to the District upon request. [Cumulative Increase]

X. RECOMMENDATION

Issue a Change of Conditions for the following equipment:

S97, External Floating Roof Tank, 298K barrel capacity (Tank 100)
S261, External Floating Roof Tank, 104K barrel capacity (Tank 1010)
S425, Marine Loading Berth M1
S426, Marine Loading Berth M2

Delete the following source from the Permit to Operate:

S14, U240, B-401 Heater

Brenda Cabral Date
Supervising Air Quality Engineer

APPENDIX A

TANK CALCULATIONS

APPENDIX B

SHIP EMISSION CALCULATIONS

APPENDIX C
NSR Application 24256

ENGINEERING EVALUATION
ConocoPhillips, San Francisco Refinery
Application #24256- Plant #16

I. BACKGROUND

ConocoPhillips has applied for a change of conditions for the following equipment:

S334 External Floating Roof Tank, 180K barrel capacity (Tank 107)
S340 External Floating Roof Tank, 200K barrel capacity (Tank 108)
S439 External Floating Roof Tank, 161K barrel capacity (Tank 109)

The facility has requested an increase from the current throughput limits to 10 MMbbl/yr each, so that the tanks can handle crude oil imports from the pipeline or ships even when a tank can be taken out of service. Following are the current throughput limits:

S334 6.51 MMbbl/yr
S340 7.67 MMbbl/yr
S439 3.65 MMbbl/yr

This project is part of a project to evaluate increased imports of crude oil through the marine terminal (Application #22904). It is being handled separately because one of the tanks will be taken out of service in April of 2012 for maintenance. The increase at these tanks will also be considered together with the marine terminal project as one project, when the marine terminal project is evaluated.

An increase in emissions for S334 was evaluated in Application #19999 in 2005. A throughput limit was imposed pursuant to that application. The increase did not trigger a risk screen. The date of initial operation in the District's databank is estimated as 1/1/78. The increase was 448 lb/yr. The beginning emissions were 3,012 lb/yr and the potential to emit was increased to 3,460 lb/yr.

The current baseline is 2,800 lb/yr. This was calculated by using the average throughput for the last three years (3,971,016 bbl/yr) and EPA's Tanks program. For the purposes of toxics, the increase shall be based on the difference between the 2005 baseline, 3,012 lb/yr, and the new potential to emit, 4,048 lb/yr. The difference is 1,036 lb/yr.

S340 is considered to be a grandfathered tank. The date of initial operation in the District's database is 6/1/81, but it has no applications attributed to it and no cumulative increase. It is listed in Condition 20989, part A, with an annual limit that is the same as the throughput on the original dataform.

S439 was initially permitted in 1998 in Application #12412. The increase for S439 was 1,478 lb/yr, which was offset in 1998. The total increase for Application 12412 did trigger a risk screen. The total increase will be considered for toxics in this action.

II. EMISSION CALCULATIONS

The increase in POC emissions for each tank was calculated using EPA's Tanks 4.09(d) software before and after the throughput changed. The Tanks printouts are in Appendix A.

S334
An increase in POC emissions for S334 was evaluated in Application #19999 in 2005. A throughput limit was imposed pursuant to that application. The increase did not trigger a risk screen. The date of initial operation in the District's databank is estimated as 1/1/78.

The increase was 448 lb/yr. The beginning emissions in 2005 were 3,012 lb/yr and the potential to emit was increased to 3,460 lb/yr. This increase was offset. The current baseline is 2,800 lb/yr. For the purposes of toxics and cumulative increase, the increase shall be based on the difference between the 2005 baseline, 3,012 lb/yr, and the new potential to emit, 4,048 lb/yr. The difference is 1,036 lb/yr.

S340
The POC increase for S340 is the difference between the current baseline (3,031 lb/yr) and the new proposed emissions (4,535 lb/yr) or 1,504 lb/yr.

S439
S439 was initially permitted in 1998 in Application 12412. The increase for S439 was 1,478 lb POC/yr, which was offset in 1998. The total increase for Application 12412 did trigger a risk screen. The total increase will be considered for toxics in this action.

For the purposes of cumulative increase, the increase will be the difference between the offset value of 1,478 lb/yr and the new potential to emit of 4,556 lb/yr or 3,078 lb/yr.

Total POC emissions increase:

S334	1,036 lb/yr
S340	1,504 lb/yr
S439	3,078 lb/yr
Total	5,618 lb/yr or 2.809 tpy

Total POC emissions after the increase will be:

S334	4,048 lb/yr
S340	4,535 lb/yr
S439	4,556 lb/yr
Total	13,139 lb/yr or 6.570 tpy

TAC emissions are:

TAC	Concentration	S334	S340	S439	Total

	%	(Tank 107)	(Tank 108)	(Tank 109)	
Benzene	0.169	1.75	2.54	7.7	11.99
Hexane	1.174	12.16	17.66	53.49	83.31
Naphthalene	0.047	0.49	0.71	2.14	3.34
Toluene	0.360	3.73	5.41	16.4	25.55
Xylene	0.568	5.88	8.54	25.88	40.31

III. CUMULATIVE INCREASE

The cumulative increase for this application will be 2.809 tpy.

IV. OFFSETS

Conoco has the potential to emit more than 35 tpy of POC. Therefore, all of its POC increases must be offset by the company. The offsets required will be 2.809 times 1.15 in accordance with BAAQMD Regulation 2-2-302. The total will be 3.230 tons of POC. In accordance with BAAQMD Regulation 2-2-421, the facility will defer providing the offsets until 30 days prior to the date of issuance of the annual renewal, which will be July 1, 2012.

V. TOXIC SCREENING ANALYSIS

A Toxic Risk Screening Analysis was required for this project. The maximum cancer risk to a resident was calculated to be 0.07 chances in a million; the maximum non-cancer hazard index for a resident was 0.00006; and the maximum acute non-cancer hazard index was 0.00004. Therefore, the project passes the risk screen.

VI. BEST AVAILABLE CONTROL TECHNOLOGY

The POC emissions at each tank will be clearly be more than 10 lb/day after the throughput increase, so all three tanks will be subject to BACT in accordance with BAAQMD Regulation 2-2-301. For external floating roof tanks holding crude oil, the District's BACT/TBACT workbook has the following for BACT:

POLLUTANT	BACT 1. Technologically Feasible/ Cost Effective 2. Achieved in Practice	TYPICAL TECHNOLOGY
POC	1. *Vapor recovery system w/ an overall system efficiency >98%*	1. *Thermal Incinerator; or Carbon Adsorber; or Refrigerated Condenser; or BAAQMD approved equivalent*
	2. *BAAQMD Approved roof w/ liquid mounted primary seal and zero gap secondary seal, all meeting design criteria of Reg. 8, Rule 5. Also, no ungasketed roof penetrations, no slotted pipe guide pole unless equipped with float and wiper seals, and no adjustable roof legs unless fitted w/ vapor seal boots or equivalent.* *Additionally, a dome is required for tanks that meet all of the following: 1) capacity greater than or equal to 19,815 gallons 2) located at a facility with greater than 20 tpy VOC emissions since the year 2000 and 3) storing a material with a vapor pressure equal to or greater than 3 psia (except for crude oil tanks that are permitted to contain more than 97% by volume crude oil).*	2. *BAAQMD Approved Roof and Seal Design*

A "zero-gap seal" is a colloquial term that means a seal that complies with BAAQMD Regulation 8-5-322.5. The tank seals will meet BACT. Since the tanks will hold crude oil, a dome will not be required.

VIII. STATEMENT OF COMPLIANCE

The tanks will comply with BAAQMD Regulation 8, Rule 5. Section 301 requires an internal or external floating roof for tanks with a volume over 39,626 gal that hold liquids with a vapor pressure between 0.5 psia and 11 psia. These are external floating roof tanks.

The tanks will comply with the requirements in Section 304 to have primary seals that meet the requirements of Section 321, secondary seals that meet the requirements of Section 322. The floating roof will rest on the surface of the liquid tank contents and must be in good operating condition. The facility will comply with the requirement for no liquid tank contents on top of either the primary or secondary seal, or on top of the floating roof (this requirement does not apply to liquid that clings to the inside tank walls as the tank is drained, or to liquid that drips from the tank walls onto the seals). The shell will be in good operating condition with no liquid leakage through the shell. The tanks will not be operated with organic liquid tank contents in any tank pontoon unless the following conditions are met:

- Within 48 hours of discovery of organic liquid in a pontoon, all lids or other openings on the affected pontoon shall be sealed and maintained in a gas tight condition; and
- The next time the tank is removed from service, repairs shall be made on all pontoon leaks on that tank.

The tanks will comply with the tank fitting requirements in Section 320, the primary seal requirements in Section 321, and the secondary seal requirements in Section 322.

The above requirements are already in the Title V permit for these tanks.

S334 is considered to be subject to 40 CFR 60, Subpart K, Standards of Performance for Storage Vessels for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978 (NSPS), and to 40 CFR 63, Subpart CC, National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries (NESHAPS). For tanks subject to 40 CFR 60, Subpart K and 40 CFR 63, Subpart CC, Section 60.640(n)(5) states that the NESHAPS supersedes the NSPS. Then, the NESHAPS subjects the tank to 40 CFR 63, Subpart G, National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater.

S340 is considered to be subject to 40 CFR 60, Subpart Ka, Standards of Performance for Storage Vessels for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984 (NSPS), and to 40 CFR 63, Subpart CC, National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries (NESHAPS). For tanks subject to 40 CFR 60, Subpart Ka and 40 CFR 63, Subpart CC, Section 60.640(n)(5) states that the NESHAPS supersedes the NSPS. Then, the NESHAPS subjects the tank to 40 CFR 63,

Subpart G, National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater.

S439 is subject to and will comply with the requirements of 40 CFR 60, Subpart Kb, Standards of Performance for Storage Vessels for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984. Tanks that are subject to NSPS Subpart Kb and NESHAPS Subpart CC are only subject to the requirements of NSPS Subpart Kb.

The proposed increase in emissions is not a modification for the purposes of NSPS Subparts K, Ka, and Kb. This determination is based on the October 17, 1997, letter from EPA's George Czerniak to Daniel R. Guido entitled " Storage Vessels for Volatile Organic Liquid (VOL), which states that an increase in throughput does not make a tank subject to the latest NSPS. George Czerniak states that the decision is based on 40 CFR 60.14, Modifications, section (e), which in turn states that "an increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility" is not a modification. Therefore, this increase in throughput does not make S334 and S340 subject to NSPS Subpart Kb.

The project is considered to be ministerial under the District's CEQA regulation 2-1-311 and therefore is not subject to CEQA review. The engineering review for this project requires only the application of standard permit conditions and standard emissions factors and therefore is not discretionary as defined by CEQA. (Permit Handbook Chapter 4)

This facility is subject to Regulation 2, Rule 6 and requires a minor revision to the Title V permit in accordance with section 2-6-404.4. The minor revision will be handled in Application #22906. The changes proposed in this application are not significant as defined by section 2-6-226, since the changes are not considered a major modification under 40 CFR Parts 51 or 52 (PSD) nor a modification under 40 CFR Parts 60 (NSPS), 63 (NESHAPs). The change will result in an emissions increase, but the increase will be small, less than 3 tpy of POC. The change will not be a significant change or relaxation of monitoring, reporting, or recordkeeping nor will it allow the facility to avoid an applicable requirement. The change is not a case-by-case determination of any emission limit or standard or facility-specific determination or incorporation of any requirement promulgated by EPA. In accordance with section 2-6-215, this change is a minor permit revision. The changes that the District will propose to make to the Title V permit are shown in Appendix B.

This project is not located within 1,000 feet of the nearest public school and is therefore not subject to the public notification requirements of Regulation 2-1-412.

X. CONDITIONS

CONDITION 12124

CONDITIONS FOR S439, TANK (T-109)

~~1. The following total throughput shall not be exceeded in any rolling continuous 12 month period:~~

~~3,650 thousand barrels [Cumulative Increase]~~

2. The following total throughput of crude oil shall not be exceeded in any rolling continuous 12 month period:

10 million barrels [Cumulative Increase]

~~3~~2. S439 shall operate with closed, gasketed covers on all tank openings except pressure relief valves and vacuum breaker valves. ~~[BACT]~~ The owner/operator shall equip S439 with a BAAQMD approved roof with liquid mounted primary seal that meets the design criteria of BAAQMD Regulation 8-5-321.3 and secondary seal that meets the design criteria of BAAQMD Regulation 8-5-322.5. The owner/operator shall ensure that there are no ungasketed roof penetrations, no slotted pipe guide poles unless equipped with float and wiper seals, and no adjustable roof legs unless fitted with vapor seal boots or equivalent. [BACT, cumulative increase]

~~4~~3. Monthly records of the throughput of each material processed at this tank shall be kept in a District-approved log for at least 5 years and shall be made available to the District upon request. [Cumulative Increase]

This condition formerly applied to S340:

CONDITION 20989

A. THROUGHPUT LIMITS

The following limits are imposed through this permit in accordance with Regulation 2-1-234.3. Sources require BOTH hourly/daily and annual throughput limits (except for tanks and similar liquid storage sources, and small manually operated sources such as cold cleaners which require only annual limits). Sources with previously imposed hourly/daily AND annual throughput limits are not listed below; the applicable limits are given in the specific permit conditions listed above in this section of the permit. Also, where hourly/daily capacities are listed in Table II-A, these are considered enforceable limits for sources that have a New Source Review permit. Throughput limits imposed in this section and hourly/daily capacities listed in Table II-A are not federally enforceable for grandfathered sources. Grandfathered sources are indicated with an asterisk in the source number column in the following table. Refer to Title V Standard Condition J for clarification of these limits.

In the absence of specific recordkeeping requirements imposed as permit conditions, monthly throughput records shall be maintained for each source.

source number	hourly / daily throughput limit	annual throughput limit (any consecutive 12-month period unless otherwise specified)
~~340~~	~~NA for tank~~	~~7.67 E 6 bbl~~

CONDITION 22478
For Sources S123 (Tank 168), S124 (Tank 169), S186 (Tank 298), and S334 (Tank 107)

1. The owner/operator shall ensure that S123 contains only water and petroleum liquid with a true vapor pressure less than or equal to 3.0 psia. [Cumulative Increase]

2. The owner/operator shall ensure that S124 contains only water and petroleum liquid with a true vapor pressure less than or equal to 11.0 psia. [Cumulative Increase]

3. The owner/operator shall ensure that the emissions of S186 do not exceed 2,231 lb VOC in any consecutive 12-month period. S186 shall only contain petroleum liquids. [Cumulative Increase]

4. The owner/operator shall ensure that S334 contains only crude oil~~ or a less volatile petroleum liquid with a true vapor pressure less than or equal to 6.75 psia~~. [BACT, Cumulative Increase]

5. The owner/operator shall ensure that the throughput of petroleum liquids at S123 does not exceed 3,000,000 barrels/yr. [Cumulative Increase]

6. The owner/operator shall ensure that the throughput of petroleum liquids at S124 does not exceed 3,000,000 barrels/yr. [Cumulative Increase]

7. The owner/operator shall ensure that the throughput of crude oil ~~or other petroleum liquids~~ at S334 does not exceed ~~5~~10,000,000 barrels/~~yr~~any consecutive 12-month period. [Cumulative Increase]

8a. The owner/operator shall equip S123, S124, and S186~~, and S334~~ with a BAAQMD approved roof with mechanical shoe primary seal and zero gap secondary seal meeting the design criteria of BAAQMD Regulation 8, Rule 5. The owner/operator shall ensure that there are no ungasketed roof penetrations, no slotted pipe guide poles unless equipped with float and wiper seals, and no adjustable roof legs unless fitted with vapor seal boots or equivalent. [BACT, cumulative increase]

8b. The owner/operator shall operate S334 with closed, gasketed covers on all tank openings except pressure relief valves and vacuum breaker valves. The owner/operator shall equip S439 with a BAAQMD approved roof with liquid

mounted primary seal that meets the design criteria of BAAQMD Regulation 8-5-321.3 and secondary seal that meets the design criteria of BAAQMD Regulation 8-5-322.5. The owner/operator shall ensure that there are no ungasketed roof penetrations, no slotted pipe guide poles unless equipped with float and wiper seals, and no adjustable roof legs unless fitted with vapor seal boots or equivalent. [BACT, cumulative increase]

9. The owner/operator shall calculate the emissions of S186 on a calendar month basis using the AP-42 equations. The owner/operator shall use actual throughputs, actual vapor pressures, and actual temperature data for each month. The owner/operator shall calculate the emissions for the last 12-month period on a monthly basis. The calculations shall be complete within a calendar month after the end of each monthly period. [Cumulative increase]

CONDITION 25223
For Source S340 (Tank 108)

1. The total throughput of crude oil shall not exceed 10 million barrels in any rolling continuous 12 month period. The tank shall only store crude oil. [Cumulative Increase]

2. The owner/operator shall operate S340 with closed, gasketed covers on all tank openings except pressure relief valves and vacuum breaker valves. The owner/operator shall equip S340 with a BAAQMD approved roof with liquid mounted primary seal that meets the design criteria of BAAQMD Regulation 8-5-321.3 and secondary seal that meets the design criteria of BAAQMD Regulation 8-5-322.5. The owner/operator shall ensure that there are no ungasketed roof penetrations, no slotted pipe guide poles unless equipped with float and wiper seals, and no adjustable roof legs unless fitted with vapor seal boots or equivalent. [BACT, cumulative increase]

3. Monthly records of the throughput of each material processed at this tank shall be kept in a District-approved log for at least 5 years and shall be made available to the District upon request. [Cumulative Increase]

X. RECOMMENDATION

Issue a Change of Conditions for the following equipment:

S334 External Floating Roof Tank, 180K barrel capacity (Tank 107)
S340 External Floating Roof Tank, 200K barrel capacity (Tank 108)
S439 External Floating Roof Tank, 161K barrel capacity (Tank 109)

Brenda Cabral
Supervising Air Quality Engineer

APPENDIX A

TANK CALCULATIONS

APPENDIX B-PROPOSED CHANGES TO TITLE V PERMIT

Table II A - Permitted Sources

Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. The capacities in this table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-301.

S#	Description	Make or Type	Model	Capacity
334	Tank 107	external floating roof	crude oil	180 thousand bbl
340	Tank 108	external floating roof	crude oil	200 thousand bbl
439	Tank 109	external floating roof	crude oil, gasoline, others	161 thousand bbl

Table IV – BB.7
Source-Specific Applicable Requirements
NSPS Kb Zero gap External Floating Roof Tanks
S439 (Tank 109), S440 (Tank 110), S442 (Tank 112), S444 (Tank 243),

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 8, Rule 5	**Organic Compounds, Storage of Organic Liquids (10/18/06) REQUIREMENTS FOR EXTERNAL FLOATING ROOF TANKS**		
8-5-111	Limited Exemption, Tank Removal From and Return to Service	N	
8-5-111.1	Limited Exemption, Tank Removal From and Return to Service, Notification	N	
8-5-111.2	Limited Exemption, Tank Removal From and Return to Service; Tank in compliance at time of notification	N	
8-5-111.3	Limited Exemption, Tank Removal From and Return to Service; Filling, emptying, refilling floating roof tanks	N	
8-5-111.5	Limited Exemption, Tank Removal From and Return to Service; Minimize emissions and, if required, degas per 8-5-328	N	
8-5-111.6	Limited Exemption, Tank Removal From and Return to Service; Self report if out of compliance during exemption period	N	
8-5-112	Limited Exemption, Preventative Maintenance and Inspection of Tanks in Operation	N	
8-5-112.1	Limited Exemption, Preventative Maintenance and Inspection of Tanks in Operation; Notification	N	
8-5-112.2	Limited Exemption, Preventative Maintenance and Inspection of Tanks in Operation; Tank in compliance at time of notification	N	

Table IV – BB.7
Source-Specific Applicable Requirements
NSPS Kb Zero gap External Floating Roof Tanks
S439 (Tank 109), S440 (Tank 110), S442 (Tank 112), S444 (Tank 243),

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-5-112.3	Limited Exemption, Preventative Maintenance and Inspection of Tanks in Operation; No product movement, Minimize emissions	N	
8-5-112.4	Limited Exemption, Preventative Maintenance and Inspection of Tanks in Operation; Not to exceed 7 days	N	
8-5-112.5	Limited Exemption, Preventative Maintenance and Inspection of Tanks in Operation; Self report if out of compliance during exemption period	N	
8-5-112.6	Limited Exemption, Preventative Maintenance and Inspection of Tanks in Operation; Keep records for each exemption	N	
8-5-119	Limited Exemption, Repair Period for Enhanced Monitoring Program	N	
8-5-301	Storage Tank Control Requirements	N	
8-5-304	Requirements for External Floating Roof Tanks	N	
8-5-304.1	Requirements for External Floating Roofs; Tank fittings	Y	
8-5-304.2	Requirements for External Floating Roofs; Primary seal (8-5-321)	Y	
8-5-304.3	Requirements for External Floating Roofs; Secondary seal (8-5-322)	Y	
8-5-304.4	Requirements for External Floating Roofs; Floating roof	N	
8-5-304.5	Requirements for External Floating Roofs; Tank shell	N	
8-5-304.6	Requirements for External Floating Roofs; Pontoons – no leaks	N	
8-5-304.6.1	Requirements for External Floating Roofs; Pontoons – make gas tight if leaking	N	
8-5-304.6.2	Requirements for External Floating Roofs; Pontoons-repair all leaks at next removal from service	N	
8-5-320	Floating Roof Tank Fitting Requirements	N	
8-5-320.2	Floating Roof Tank Fitting Requirements; Projection below liquid surface	N	
8-5-320.3	Floating Roof Tank Fitting Requirements; Gasketed covers, seals, lids	N	
8-5-320.3.1	Floating Roof Tank Fitting Requirements; Gasketed covers, seals, lids - Gap requirements	Y	
8-5-320.4	Floating Roof Tank Fitting Requirements; Solid sampling or gauging wells--	N	
8-5-320.4.1	Floating Roof Tank Fitting Requirements; Solid sampling or gauging wells--projection below liquid surface	Y	
8-5-320.4.2	Floating Roof Tank Fitting Requirements; Solid sampling or gauging wells--cover, seal, or lid	Y	
8-5-320.4.3	Floating Roof Tank Fitting Requirements; Solid sampling or gauging wells-- total secondary seal gap must include well gap	Y	
8-5-320.6	Floating Roof Tank Fitting Requirements; emergency roof drains must be 90% covered	N	
8-5-321	Primary seal requirements	N	
8-5-321.1	Primary seal requirements; No holes, tears, or other openings	Y	
8-5-321.2	Primary seal requirements; The seal shall be metallic shoe or liquid mounted except as provided in 8-5-305.1.3	Y	
8-5-321.3	Primary seal requirements; Metallic-shoe-type seal requirements	N	
8-5-321.3.1	Primary seal requirements; Metallic-shoe-type seal requirements - geometry of shoe	N	

Table IV – BB.7
Source-Specific Applicable Requirements
NSPS Kb Zero gap External Floating Roof Tanks
S439 (Tank 109), S440 (Tank 110), S442 (Tank 112), S444 (Tank 243),

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-5-321.3.2	Primary seal requirements; Metallic-shoe-type seal requirements - welded tanks gap requirements	N	
8-5-322	Secondary seal requirements	N	
8-5-322.1	Secondary seal requirements; No holes, tears, or other openings	N	
8-5-322.2	Secondary seal requirements; Insertion of probes	N	
8-5-322.5	Secondary seal requirements; Gap requirements for welded external floating roof tanks with seal installed after September 4, 1985	N	
8-5-322.6	Secondary seal requirements; extent of seal	N	
8-5-328	Tank degassing requirements	N	
8-5-328.1	Tank degassing requirements; Tanks > 75 cubic meters	N	
8-5-328.2	Tank degassing requirements; Ozone Excess Day Prohibition	N	
8-5-328.3	Tank degassing requirements; BAAQMD notification required	N	
8-5-401	Inspection Requirements for External Floating Roof Tanks	N	
8-5-401.1	Inspection Requirements for External Floating Roof Tanks; Primary and Secondary Seal Inspections	N	
8-5-401.2	Inspection Requirements for External Floating Roof Tanks; Tank Fittings Inspections	N	
8-5-404	Inspection, Abatement Efficiency Determination, and Source Test Reports	N	
8-5-411	Enhanced Monitoring Program (Optional)	N	
8-5-411.1	Enhanced Monitoring Program (Optional); Notify BAAQMD of tanks selected for enhanced monitoring program	N	
8-5-411.2	Enhanced Monitoring Program (Optional); Criteria for operating enhanced monitoring program	N	
8-5-411.3	Enhanced Monitoring Program (Optional); Performance requirements	N	
8-5-412	Monitoring of Leaking Pontoons	N	
8-5-501	Records	N	
8-5-501.1	Records; Type and amount of liquid, type of blanket gas, TVP- Retain 24 months	N	
8-5-501.2	Records; Internal and External Floating Roof Tanks, Seal Replacement Records- Retain 10 years	N	
8-5-501.3	Records; Retention	N	
8-5-602	Analysis of Samples, True Vapor Pressure	Y	
8-5-604	Determination of Applicability Based on True Vapor Pressure	Y	
8-5-605	Measurement of Leak Concentration and Residual Concentrations	N	
8-5-605.1	Measurement of Leak Concentration and Residual Concentrations; EPA method 21 Instruments	N	
8-5-605.2	Measurement of Leak Concentration and Residual Concentrations; Method 21 and tank degassing residual organic concentration measurement method	N	
SIP Regulation 8, Rule 5	**Storage of Organic Liquids (06/05/2003)**		
8-5-111	Limited Exemption, Tank Removal From and Return to Service	Y	
8-5-111.1	Limited Exemption, Tank Removal From and Return to Service; Notice to the APCO	Y	

Table IV – BB.7
Source-Specific Applicable Requirements
NSPS Kb Zero gap External Floating Roof Tanks
S439 (Tank 109), S440 (Tank 110), S442 (Tank 112), S444 (Tank 243),

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-5-111.1.1	Limited Exemption, Tank Removal From and Return to Service; Notice to the APCO; 3 day prior notification	Y	
8-5-111.1.2	Limited Exemption, Tank Removal From and Return to Service; Notice to the APCO; Telephone notification	Y	
8-5-111.2	Limited Exemption, Tank Removal From and Return to Service; Compliance before notification	Y	
8-5-111.3	Limited Exemption, Tank Removal From and Return to Service; Floating roof tanks - continuous and quick filling, emptying and refilling	Y	
8-5-111.5	Limited Exemption, Tank Removal From and Return to Service; Minimization of emissions	Y	
8-5-111.6	Limited Exemption, Tank Removal From and Return to Service; Written notice of completion not required	Y	
8-5-111.7	Limited Exemption, Tank Removal From and Return to Service; Compliance with Section 8-5-328	Y	
8-5-112	Limited Exemption, Tanks in Operation	Y	
8-5-112.1	Limited Exemption, Tanks in Operation; Notice to the APCO	Y	
8-5-112.1.1	Limited Exemption, Tanks in Operation; Notice to the APCO; 3 day prior notification	Y	
8-5-112.1.2	Limited Exemption, Tanks in Operation; Notice to the APCO; Telephone notification	Y	
8-5-112.2	Limited Exemption, Tanks in Operation; Compliance and certification before commencement of work per 8-5-404	Y	
8-5-112.3	Limited Exemption, Tanks in Operation; No product movement; minimization of emissions	Y	
8-5-112.4	Limited Exemption, Tanks in Operation; Exemption does not exceed 7 days	Y	
8-5-301	Storage Tank Control Requirements (internal floating roof, external floating roof, or approved emission control system)	Y	
8-5-304	Requirements for External Floating Roofs	Y	
8-5-304.4	Requirements for External Floating Roofs; Floating roof requirements	Y	
8-5-320	Tank fitting requirements – Floating roof tanks	Y	
8-5-320.2	Tank fitting requirements – Floating roof tanks, Projection below liquid surface	Y	
8-5-320.3	Tank fitting requirements – Floating roof tanks, Gasketed covers, seals, lids –	Y	
8-5-320.4	Tank Fitting Requirements; Solid sampling or gauging well requirements in floating roof tanks	Y	
8-5-320.6	Tank Fitting Requirements; Emergency roof drain	Y	
8-5-321	Primary seal requirements	Y	
8-5-321.3	Primary seal requirements; Metallic shoe type seal requirements	Y	
8-5-321.3.1	Primary seal requirements; Metallic shoe type seal requirements Geometry of shoe	Y	
8-5-321.3.2	Primary seal requirements; Metallic shoe type seal requirements Gaps for welded tanks	Y	
8-5-322	Secondary seal requirements	Y	

Table IV – BB.7
Source-Specific Applicable Requirements
NSPS Kb Zero gap External Floating Roof Tanks
S439 (Tank 109), S440 (Tank 110), S442 (Tank 112), S444 (Tank 243),

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-5-322.1	Secondary seal requirements; No holes, tears, or other openings	Y	
8-5-322.2	Secondary seal requirements; Insertion of probes	Y	
8-5-322.5	Secondary seal requirements; Gap for welded tanks with seal installed after September 4, 1985	Y	
8-5-322.6	Secondary seal requirements; extent of seal	Y	
8-5-328	Tank degassing requirements	Y	
8-5-328.1	Tank degassing requirements; Tanks > 75 cubic meters	Y	
8-5-328.1.2	Tank degassing requirements; Tanks > 75 cubic meters; Concentration of <10,000 ppm as methane after degassing	Y	
8-5-328.2	Tank degassing requirements; Ozone Excess Day Prohibition	Y	
8-5-401	Inspection Requirements for External Floating Roof Tanks	Y	
8-5-401.1	Inspection Requirements for External Floating Roof Tanks; Primary and Secondary Seal Inspections	Y	
8-5-401.2	Inspection Requirements for External Floating Roof Tanks; Tank Fittings Inspections	Y	
8-5-404	Certification	Y	
8-5-405	Information required	Y	
8-5-501	Records	Y	
8-5-501.1	Records; Type and amounts of liquid; true vapor pressure; Retain 24 months	Y	
8-5-501.2	Records; Internal and External Floating Roof Tanks; Seal Replacement Records – Retain 10 years	Y	
8-5-503	Portable hydrocarbon detector	Y	
40 CFR 60, Subpart Kb	**Standards of Performance for Storage Vessels for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 (10/15/03)** **REQUIREMENTS FOR EXTERNAL FLOATING ROOF TANKS**		
60.110b(a)	Applicability and Designation of Affected Facility; Volatile organic liquid storage vessels > or = to 40 cu m, after 7/23/1984	Y	
60.112b(a)	Standard for Volatile Organic Compounds (VOC); Requirement for tanks- > 151 cu m with maximum TVP >=5.2 kPa and <76.6 kPa; or >= 75 cu m and < 151 cu m with maximum TVP >= 27.6 kPa and < 76.6 kPa	Y	
60.112b(a)(2)	Standard for Volatile Organic Compounds (VOC); External floating roof option	Y	
60.112b(a)(2)(i)	Standard for Volatile Organic Compounds (VOC); External floating roof seal requirements	Y	
60.112b(a)(2)(i)(A)	Standard for Volatile Organic Compounds (VOC); External floating roof primary seal requirements	Y	
60.112b(a)(2)(i)(B)	Standard for Volatile Organic Compounds (VOC); External floating roof secondary seal requirements	Y	
60.112b(a)(2)(ii)	Standard for Volatile Organic Compounds (VOC); External floating roof openings requirements	Y	
60.112b(a)(2)(iii)	Standard for Volatile Organic Compounds (VOC); External floating roof floating requirements	Y	

Table IV – BB.7
Source-Specific Applicable Requirements
NSPS Kb Zero gap External Floating Roof Tanks
S439 (Tank 109), S440 (Tank 110), S442 (Tank 112), S444 (Tank 243),

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.113b(b)(1)	Testing and Procedures; External floating roof seal gap measurement frequency	Y	
60.113b(b)(1)(i)	Testing and Procedures; External floating roof primary seal gaps measurement frequency	Y	
60.113b(b)(1)(ii)	Testing and Procedures; External floating roof secondary seal gaps measurement frequency	Y	
60.113b(b)(1)(iii)	Testing and Procedures; External floating roof reintroduction of VOL	Y	
60.113b(b)(2)	Testing and Procedures; External floating roof seal gap measurement procedures	Y	
60.113b(b)(2)(i)	Testing and Procedures; External floating roof measure seal gaps when roof is floating	Y	
60.113b(b)(2)(ii)	Testing and Procedures; External floating roof measure seal gaps around entire circumference	Y	
60.113b(b)(2)(iii)	Testing and Procedures; External floating roof seal method to determine surface area of seal gaps	Y	
60.113b(b)(3)	Testing and Procedures; External floating roof method to calculate total surface area ratio	Y	
60.113b(b)(4)	Testing and Procedures; External floating roof seal gap repair requirements	Y	
60.113b(b)(4)(i)	Testing and Procedures; External floating roof primary seal gap limitations	Y	
60.113b(b)(4)(i)(A)	Testing and Procedures; External floating roof mechanical shoe primary seal requirements	Y	
60.113b(b)(4)(i)(B)	Testing and Procedures; External floating roof primary seals no holes, tears, openings	Y	
60.113b(b)(4)(ii)	Testing and Procedures; External floating roof secondary seal gap limitations	Y	
60.113b(b)(4)(ii)(A)	Testing and Procedures; External floating roof secondary seal installation	Y	
60.113b(b)(4)(ii)(B)	Testing and Procedures; External floating roof secondary seal gap	Y	
60.113b(b)(4)(ii)(C)	Testing and Procedures; External floating roof secondary seals no holes, tears, openings	Y	
60.113b(b)(4)(iii)	Testing and Procedures; External floating roof 30-day extension request for seal gap repairs	Y	
60.113b(b)(5)	Testing and Procedures; External floating roof seal gap inspections 30 day notification	Y	
60.113b(b)(6)	Testing and Procedures; External floating roof visual inspection when emptied and degassed	Y	
60.113b(b)(6)(i)	Testing and Procedures; External floating roof--roof or seal defect repairs	Y	
60.113b(b)(6)(ii)	Testing and Procedures; External floating roof notification prior to filling	Y	
60.115b	Reporting and Recordkeeping Requirements; 60.112b(a) tanks; Record retention	Y	
60.115b(b)	Reporting and Recordkeeping Requirements; 60.112b(a) external	Y	

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Source-Specific Applicable Requirements
NSPS Kb Zero gap External Floating Roof Tanks
S439 (Tank 109), S440 (Tank 110), S442 (Tank 112), S444 (Tank 243),

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
	floating		
60.115b(b)(1)	Reporting and Recordkeeping Requirements; 60.112b(a) external floating roof control equipment description and certification	Y	
60.115b(b)(2)	Reporting and Recordkeeping Requirements; 60.112b(a) external floating roof seal gap measurement report – content requirements	Y	
60.115b(b)(3)	Reporting and Recordkeeping Requirements; 60.112b(a) external floating roof seal gap measurement records requirements	Y	
60.115b(b)(4)	Reporting and Recordkeeping Requirements; 60.112b(a) external floating roof seal gap exceedance report	Y	
60.116b(a)	Monitoring of Operations; Record retention	Y	
60.116b(b)	Monitoring of Operations; Permanent record requirements	Y	
60.116b(c)	Monitoring of Operations; VOL storage record requirements	Y	
60.116b(e)	Monitoring of Operations; Determine TVP	Y	
60.116b(e)(2)	Monitoring of Operations; Determine TVP-crude oil and refined petroleum	Y	
40 CFR 63, Subpart CC	**National Emission Standards for Hazardous Pollutants for Petroleum Refining (6/23/03) REQUIREMENTS FOR EXTERNAL FLOATING ROOF TANKS ALSO SUBJECT TO NSPS, Subpart Kb**		
63.640(c)(2)	Applicability and Designation of Storage Vessels	Y	
63.640(n)(1)	Applicability and Designation of Affected Source Overlap for Storage Vessels-Existing Group 1 or Group 2 also subject to Kb only subject to Kb and 63.640(n)(8).	Y	
63.640(n)(8)	Applicability and Designation of Affected Source Overlap for Storage Vessels-Additional requirements for Kb storage vessels	Y	
63.640(n)(8)(i)	Applicability and Designation of Affected Source Overlap for Storage Vessels-Additional requirements for Kb storage vessels	Y	
63.640(n)(8)(ii)	Applicability and Designation of Affected Source Overlap for Storage Vessels-Additional requirements for Kb storage vessels	Y	
63.640(n)(8)(iii)	Applicability and Designation of Affected Source Overlap for Storage Vessels-Additional requirements for Kb storage vessels	Y	
63.640(n)(8)(iv)	Applicability and Designation of Affected Source Overlap for Storage Vessels-Additional requirements for Kb storage vessels	Y	
63.640(n)(8)(v)	Applicability and Designation of Affected Source Overlap for Storage Vessels-Additional requirements for Kb storage vessels	Y	
63.640(n)(8)(vi)	Applicability and Designation of Affected Source Overlap for Storage Vessels-Additional requirements for Kb storage vessels	Y	
BAAQMD Condition 12124	**APPLICABLE TO S439**		
Part 1	Annual throughput limit [Basis: Cumulative Increase]	Y	
Part 2	Requirements for tank openings [Basis: Cumulative Increase]	Y	
Part 3	Monthly throughput records [Basis: Cumulative Increase]	Y	
BAAQMD Condition 12125	**APPLICABLE TO S440**		
Part 1	Annual throughput limit [Basis: Cumulative Increase]	Y	
Part 2	Requirements for tank openings [Basis: Cumulative Increase]	Y	

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Source-Specific Applicable Requirements
NSPS Kb Zero gap External Floating Roof Tanks
S439 (Tank 109), S440 (Tank 110), S442 (Tank 112), S444 (Tank 243),

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
Part 3	Monthly throughput records [Basis: Cumulative Increase]	Y	
BAAQMD Condition 12127	**APPLICABLE TO S442**		
Part 1	Annual throughput limit [Basis: Cumulative Increase]	Y	
Part 2	Requirements for tank openings [Basis: Cumulative Increase]	Y	
Part 3	Monthly throughput records [Basis: Cumulative Increase]	Y	
BAAQMD Condition 12129	**APPLICABLE TO S444**		
Part 1	Annual throughput limit [Basis: Cumulative Increase]	Y	
Part 2	Requirements for tank openings [Basis: Cumulative Increase]	Y	
Part 3	Monthly throughput records [Basis: Cumulative Increase]	Y	

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Source-Specific Applicable Requirements
MACT Zero-Gap External Floating Roof Tanks
S97 (Tank 100), S98, (Tank 101), S100 (Tank 103), S107 (Tank 150), S110 (Tank 155), S111 (Tank 156), S112 (Tank 157), S114 (Tank 159), S115 (Tank 160), S122 (Tank 167), S123 (Tank 168), S124 (Tank 169), S128 (Tank 174), S129 (Tank 180), S150 (Tank 241), S151 (Tank 242), S177 (Tank 287), S178 (Tank 288), S186 (Tank 298), S254 (Tank 1001), S255 (Tank 1002), S256 (Tank 1003), S259 (Tank 1006)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
	Excerpt of table		
BAAQMD Condition 22478	Applies to S123, S124, S186		
Part 1	Vapor pressure limit for S123 [Basis: cumulative increase]	Y	
Part 2	Vapor pressure limit for S124 [Basis: cumulative increase]	Y	
Part 3	Emissions limit for S186 [Basis: cumulative increase]	Y	
Part 5	Throughput limit for S123 [Basis: cumulative increase]	Y	
Part 6	Throughput limit for S124 [Basis: cumulative increase]		
Part 8	BACT equipment requirements for S123, S124, and S186~~, and S334~~ [Basis: BACT, cumulative increase]	Y	
Part 9	Emission calculations S186 [Basis: cumulative increase]	Y	

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Source-Specific Applicable Requirements
NSPS K AND NSPS KA ZERO-GAP EXTERNAL FLOATING ROOF TANKS
NSPS K – S334 (TANK 107),
NSPS KA – S341 (TANK 208), S342 (TANK 209), S343 (TANK 210)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
BAAQMD Regulation 8, Rule 5	**Organic Compounds, Storage of Organic Liquids (10/18/06) REQUIREMENTS FOR EXTERNAL FLOATING ROOF TANKS**		
8-5-111	Limited Exemption, Tank Removal From and Return to Service	Y	
8-5-111.1	Limited Exemption, Tank Removal From and Return to Service, Notification	N	
8-5-111.1.1	Limited Exemption, Tank Removal From and Return to Service, Notification, 3 day prior notification	Y	
8-5-111.1.2	Limited Exemption, Tank Removal From and Return to Service, Notification, Telephone notification	Y	
8-5-111.2	Limited Exemption, Tank Removal From and Return to Service, Tank in compliance prior to notification	N	
8-5-111.3	Limited Exemption, Tank Removal From and Return to Service, Floating roof tanks	Y	
8-5-111.5	Limited Exemption, Tank Removal From and Return to Service, Minimize emissions	Y	
8-5-112	Limited Exemption, Preventative Maintenance and Inspection of Tanks in Operation	N	
8-5-112.1	Limited Exemption, Tanks in Operation, Notification	N	
8-5-112.1.1	Limited Exemption, Tanks in Operation, Notification, 3 day prior notification	N	
8-5-112.1.2	Limited Exemption, Tanks in Operation, Notification, Telephone notification	N	
8-5-112.2	Limited Exemption, Tanks in Operation, Tank in compliance prior to start of work. Certified per 8-5-404	N	
8-5-112.3	Limited Exemption, Tanks in Operation, No product movement, Minimize emissions	N	
8-5-112.4	Limited Exemption, Tanks in Operation, Not to exceed 7 days	N	
8-5-112.6	Tank Records	N	
8-5-119	Limited Exemption, Repair Period (Applies to S341 only)	N	
8-5-301	Storage Tank Control Requirements (internal floating roof, external floating roof, or approved emission control system)	N	
8-5-304	Requirements for External Floating Roofs	N	
8-5-304.1	Requirements for External Floating Roofs; Tank fitting requirements	Y	
8-5-304.2	Requirements for External Floating Roofs; Primary seal requirements	Y	
8-5-304.3	Requirements for External Floating Roofs; Secondary seal requirements	Y	
8-5-304.4	Requirements for External Floating Roofs; Floating roof requirements	N	
8-5-304.5	Requirements for External Floating Roofs; Shell in good condition	N	
8-5-304.6	Requirements for External Floating Roofs; tank pontoons	N	
8-5-320	Tank Fitting Requirements; Floating roof tanks	Y	
8-5-320.2	Tank Fitting Requirements; Floating roof tanks, Projection below liquid surface	Y	
8-5-320.3	Tank Fitting Requirements; Floating roof tanks, Gasketed covers, seals, lids	Y	
8-5-320.3.1	Tank Fitting Requirements; Floating roof tanks, Gasketed covers,	Y	

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Source-Specific Applicable Requirements
NSPS K AND NSPS KA ZERO-GAP EXTERNAL FLOATING ROOF TANKS
NSPS K – S334 (TANK 107),
NSPS KA – S341 (TANK 208), S342 (TANK 209), S343 (TANK 210)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
	seals, lids – Gap requirements		
8-5-320.4	Tank Fitting Requirements; Solid sampling or gauging well requirements in floating roof tanks	Y	
8-5-320.4.1	Tank Fitting Requirements; Solid sampling or gauging well requirements-projection below liquid surface	Y	
8-5-320.4.2	Tank Fitting Requirements; Solid sampling or gauging well requirements-cover, seal, or lid	Y	
8-5-320.4.3	Tank Fitting Requirements; Solid sampling or gauging well requirements-gap between well and roof	Y	
8-5-320.6	Tank Fitting Requirements; Emergency roof drain	Y	
8-5-320.7	Tank Fitting Requirements; Pressure relief devices	Y	
8-5-321	Primary Seal Requirements	Y	
8-5-321.1	Primary Seal Requirements; No holes, tears, other openings	Y	
8-5-321.2	Primary seal requirements; The seal shall be metallic shoe or liquid mounted except as provided in 8-5-305.1.3	Y	
8-5-321.3	Primary Seal Requirements; Metallic-shoe-type seal requirements	Y	
8-5-321.3.1	Primary Seal Requirements; Metallic-shoe-type seal requirements-geometry of shoe	Y	
8-5-321.3.2	Primary Seal Requirements; Metallic-shoe-type seal requirements-welded tanks	Y	
8-5-322	Secondary Seal Requirements	Y	
8-5-322.1	Secondary Seal Requirements; No holes, tears, other openings	Y	
8-5-322.2	Secondary Seal Requirements; Insertion of probes	Y	
8-5-322.5	Secondary Seal Requirements; Welded external floating roof tanks with seals installed after 9/4/1985 or welded internal floating roof tanks with seals installed after 2/1/1993	Y	
8-5-322.6	Secondary Seal Requirements; Extent of seal	Y	
8-5-328	Tank Degassing Requirements	Y	
8-5-328.1	Tank Degassing Requirements; Tanks > 75 cubic meters	Y	
8-5-328.1.2	Tank Degassing Requirements; Tanks > 75 cubic meters, Approved Emission Control System	Y	
8-5-328.2	Tank Degassing Requirements; Ozone Excess Day Prohibition	Y	
8-5-328.3	Notification of degassing	N	
8-5-331	Tank Cleaning Requirements	N	
8-5-332	Sludge Handling Requirements	N	
8-5-401	Inspection Requirements for External Floating Roof Tanks	Y	
8-5-401.1	Inspection Requirements for External Floating Roof Tanks; Primary and Secondary Seal Inspections	Y	
8-5-401.2	Inspection Requirements for External Floating Roof Tanks; Tank Fittings Inspections	Y	
8-5-404	Inspection, Abatement Efficiency Determination and Source Test Reports	N	
8-5-405	Information Required	Y	
8-5-411	Enhanced Monitoring Program (Applies to list of tanks chosen by facility)	N	

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Source-Specific Applicable Requirements
NSPS K AND NSPS KA ZERO-GAP EXTERNAL FLOATING ROOF TANKS
NSPS K – S334 (TANK 107),
NSPS KA – S341 (TANK 208), S342 (TANK 209), S343 (TANK 210)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
8-5-412	Monitoring of Leaking Pontoons	N	
8-5-501	Records	Y	
8-5-501.1	Records; Type and amounts of liquid, type of blanket gas, TVP – Retain 24 months	Y	
8-5-501.2	Records; Internal and External Floating Roof Tanks, Seal Replacement Records – Retain 10 years	Y	
8-5-602	Analysis of Samples, True Vapor Pressure	Y	
8-5-604	Determination of Applicability	Y	
SIP Regulation 8, Rule 5	**Organic Compounds, Storage of Organic Liquids (6/5/03)**		
8-5-111.1	Limited Exemption, Tank Removal From and Return to Service, Notification	Y	
8-5-111.2	Limited Exemption, Tank Removal From and Return to Service, Tank in compliance prior to notification	Y	
8-5-111.5	Limited Exemption, Tank Removal From and Return to Service, Minimize emissions	Y	
8-5-111.6	Limited Exemption, Tank Removal From and Return to Service, Notice of completion not required	Y	
8-5-111.7	Limited Exemption, Tank Removal From and Return to Service, Satisfy requirements of 8-5-328	Y	
8-5-112	Limited Exemption, Preventative Maintenance and Inspection of Tanks in Operation	Y	
8-5-112.1	Limited Exemption, Tanks in Operation, Notification	Y	
8-5-112.1.1	Limited Exemption, Tanks in Operation, Notification, 3 day prior notification	Y	
8-5-112.1.2	Limited Exemption, Tanks in Operation, Notification, Telephone notification	Y	
8-5-112.2	Limited Exemption, Tanks in Operation, Tank in compliance prior to start of work. Certified per 8-5-404	Y	
8-5-301	Storage Tank Control Requirements (internal floating roof, external floating roof, or approved emission control system)	Y	
8-5-303	Requirements for Pressure Vacuum Valves (applies only to S107 (Tank 150), S110 (Tank 155), S115 (Tank 160), S123 (Tank 168), S128 (Tank 174), S129 (Tank 180), S178 (Tank 288))	Y	
8-5-320	Tank Fitting Requirements	Y	
8-5-320.3	Tank Fitting Requirements; Floating roof tanks, Gasketed covers, seals, lids	Y	
8-5-320.4	Tank Fitting Requirements; Solid sampling or gauging well requirements in floating roof tanks	Y	
8-5-320.4.1	Tank Fitting Requirements; Solid sampling or gauging well requirements-projection below liquid surface	Y	
8-5-320.4.2	Tank Fitting Requirements; Solid sampling or gauging well requirements-cover, seal, or lid	Y	
8-5-320.4.3	Tank Fitting Requirements; Solid sampling or gauging well requirements-gap between well and roof	Y	
8-5-328	Tank Degassing Requirements	Y	

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Source-Specific Applicable Requirements
NSPS K AND NSPS KA ZERO-GAP EXTERNAL FLOATING ROOF TANKS
NSPS K – S334 (TANK 107),
NSPS KA – S341 (TANK 208), S342 (TANK 209), S343 (TANK 210)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
8-5-328.1	Tank Degassing Requirements; Tanks > 75 cubic meters	Y	
8-5-328.1.2	Tank Degassing Requirements; Tanks > 75 cubic meters, Approved Emission Control System	Y	
8-5-328.2	Tank Degassing Requirements; Ozone Excess Day Prohibition	Y	
8-5-328.3	Notification of degassing	N	
8-5-331	Tank Cleaning Requirements	N	
8-5-332	Sludge Handling Requirements	N	
8-5-401	Inspection Requirements for External Floating Roof Tanks	Y	
8-5-401.1	Inspection Requirements for External Floating Roof Tanks; Primary and Secondary Seal Inspections	Y	
8-5-401.2	Inspection Requirements for External Floating Roof Tanks; Tank Fittings Inspections	Y	
8-5-403	Inspection Requirements for Pressure Vacuum Valves (applies only to S107 (Tank 150), S110 (Tank 155), S115 (Tank 160), S123 (Tank 168), S128 (Tank 174), S129 (Tank 180), S178 (Tank 288))	Y	
8-5-404	Certification	Y	
8-5-501	Records	Y	
8-5-501.1	Records; Type and amounts of liquid, type of blanket gas, TVP - Retain 24 months	Y	
8-5-501.2	Records; Internal and External Floating Roof Tanks, Seal Replacement Records - Retain 10 years	Y	
8-5-503	Portable Hydrocarbon Detector	Y	
40 CFR 60, Subpart K	**Standards of Performance for Storage Vessels for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978 (10/17/2000) APPLIES TO S334 (Tank 107)**		
60.110(a)	Applicability and Designation of Affected Facility; Affected facility	Y	
60.110(c)(2)	Applicability and Designation of Affected Facility-->65,000 gal after 6/11/1973 and before 5/19/1978.	Y	
60.112(a)(1)	Standard for petroleum liquids above 1.5 psia and below 11.1 psia	Y	
60.113(a)	Records of petroleum liquids, period of storage, and maximum true vapor pressure	Y	
60.113(b)	Nomographs may be used	Y	
40 CFR 60, Subpart Ka	**Standards of Performance for Storage Vessels for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984 (12/14/2000) APPLIES TO S341 (Tank 208), S342 (Tank 209), S343 (Tank 210)**		
60.110a(a)	Applicability and Designation of Affected Facility	Y	
40 CFR 63, Subpart G	**SOCMI HON G (01/27/1995) REQUIREMENTS FOR EXTERNAL FLOATING ROOF TANKS**		
63.119(a)	Storage Vessel Provisions -- Reference Control Technology	Y	

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Source-Specific Applicable Requirements
NSPS K AND NSPS KA ZERO-GAP EXTERNAL FLOATING ROOF TANKS
NSPS K – S334 (TANK 107),
NSPS KA – S341 (TANK 208), S342 (TANK 209), S343 (TANK 210)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
63.119(a)(1)	Storage Vessel Provisions -- Reference Control Technology--Group 1, TVP < 76.6 kPa	Y	
63.119(c)	Storage Vessel Provisions -- Reference Control Technology--External floating roof	Y	
63.119(c)(1)	Storage Vessel Provisions -- Reference Control Technology--External floating roof seals	Y	
63.119(c)(1)(i)	Storage Vessel Provisions -- Reference Control Technology--External floating roof double seals required	Y	
63.119(c)(1)(ii)	Storage Vessel Provisions -- Reference Control Technology--External floating roof primary seal requirements – metallic shoe or liquid-mounted	Y	
63.119(c)(1)(iii)	Storage Vessel Provisions -- Reference Control Technology--External floating roof seal requirements	Y	
63.119(c)(3)	Storage Vessel Provisions -- Reference Control Technology--External floating roof--Must float on liquid	Y	
63.119(c)(3)(i)	Storage Vessel Provisions -- Reference Control Technology--External floating roof --Must float on liquid except during initial fill	Y	
63.119(c)(3)(ii)	Storage Vessel Provisions -- Reference Control Technology--External floating roof-- Must float on liquid except after completely emptied and degassed	Y	
63.119(c)(3)(iii)	Storage Vessel Provisions -- Reference Control Technology--External floating roof -- Must float on liquid except when completely emptied before refilling	Y	
63.119(c)(4)	Storage Vessel Provisions -- Reference Control Technology--External Floating Roof Operations, when not floating	Y	
63.120(b)	Storage Vessel Provisions -- Procedures to Determine Compliance--Compliance Demonstration--External floating roof	Y	
63.120(b)(1)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR seal gap measurement	Y	
63.120(b)(1)(i)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR with double seals - primary seal gap measurement – 5 year intervals	Y	
63.120(b)(1)(iii)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR with double seals - secondary seal gap measurement – annual requirement	Y	
63.120(b)(1)(iv)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR seal inspections prior to tank refill with organic HAP after not storing organic HAP for 1 year or longer	Y	
63.120(b)(2)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR seal gap determination methods	Y	
63.120(b)(2)(i)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR seal gap determination methods – roof not resting on legs	Y	
63.120(b)(2)(ii)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR seal gap determination methods – measure gaps around entire circumference of seal and measure width and length of gaps	Y	
63.120(b)(2)(iii)	Storage Vessel Provisions -- Procedures to Determine Compliance--	Y	

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Source-Specific Applicable Requirements
NSPS K AND NSPS KA ZERO-GAP EXTERNAL FLOATING ROOF TANKS
NSPS K – S334 (TANK 107),
NSPS KA – S341 (TANK 208), S342 (TANK 209), S343 (TANK 210)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
	External FR seal gap determination methods – determine total surface area of each gap		
63.120(b)(3)	Storage Vessel Provisions -- Procedures to Determine Compliance-- External FR primary seal gap calculation method – total surface area of primary seal gaps <= 212 cm2 per meter of vessel diameter. Maximum width <= 3.81 cm	Y	
63.120(b)(4)	Storage Vessel Provisions -- Procedures to Determine Compliance-- External FR secondary seal gap calculation method – total surface area of secondary seal gaps <= 21.2 cm2 per meter of vessel diameter. Maximum width <= 1.27 cm	Y	
63.120(b)(5)	Storage Vessel Provisions -- Procedures to Determine Compliance-- External FR primary seal additional requirements	Y	
63.120(b)(5)(i)	Storage Vessel Provisions -- Procedures to Determine Compliance-- External FR primary seal additional requirements – metallic shoe seal – shoe geometry	Y	
63.120(b)(5)(ii)	Storage Vessel Provisions -- Procedures to Determine Compliance-- External FR primary seal additional requirements – no holes, tears, or openings	Y	
63.120(b)(6)	Storage Vessel Provisions -- Procedures to Determine Compliance-- External FR secondary seal requirements	Y	
63.120(b)(6)(i)	Storage Vessel Provisions -- Procedures to Determine Compliance-- External FR secondary seal requirements – location and extent	Y	
63.120(b)(6)(ii)	Storage Vessel Provisions -- Procedures to Determine Compliance-- External FR secondary seal requirements - no holes, tears or openings	Y	
63.120(b)(7)	Storage Vessel Provisions -- Procedures to Determine Compliance-- External FR unsafe to perform seal measurements or inspect the tank	Y	
63.120(b)(7)(i)	Storage Vessel Provisions -- Procedures to Determine Compliance-- External FR unsafe to perform seal measurements or inspect the tank – complete measurements or inspection within 30 days after determining roof is unsafe or comply with 63.120(b)(7)(ii)	Y	
63.120(b)(7)(ii)	Storage Vessel Provisions -- Procedures to Determine Compliance-- External FR unsafe to perform seal measurements or inspect the tank – empty and remove vessel from service within 45 days after determining roof is unsafe or comply with 63.120(b)(7)(i). Two 30 day extensions are allowed to empty the tank. Decision to use extension must be documented.	Y	
63.120(b)(8)	Storage Vessel Provisions -- Procedures to Determine Compliance External FR Repairs must be made within 45 days after identification or empty and remove tank from service. Two 30 day extensions are allowed to empty the tank. Decision to use extension must be documented.	Y	
63.120(b)(9)	Storage Vessel Provisions -- Procedures to Determine Compliance External FR seal gap measurement 30 day notification	Y	
63.120(b)(10)	Storage Vessel Provisions -- Procedures to Determine Compliance-- External FR and seals visual inspection each time emptied	Y	

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Source-Specific Applicable Requirements
NSPS K AND NSPS KA ZERO-GAP EXTERNAL FLOATING ROOF TANKS
NSPS K – S334 (TANK 107),
NSPS KA – S341 (TANK 208), S342 (TANK 209), S343 (TANK 210)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
63.120(b)(10)(i)	Storage Vessel Provisions -- Procedures to Determine Compliance-- External FR and seal visual inspection each time emptied – Repair defects before refilling [does not apply to gaskets, slotted membranes, or sleeve seals for Group 1 Refinery MACT tanks per 63.646(e)	Y	
63.120(b)(10)(ii)	Storage Vessel Provisions -- Procedures to Determine Compliance-- External FR and seal visual inspection each time emptied – 30 day notification	Y	
63.120(b)(10)(iii)	Storage Vessel Provisions -- Procedures to Determine Compliance-- External FR and seal visual inspection each time emptied –- Notification for unplanned	Y	
63.123(a)	Storage Vessel Provisions -- Recordkeeping--Group 1 and Group 2 storage vessel dimensions and capacity. Keep for life of source.	Y	
63.123(d)	Storage Vessel Provisions -- Recordkeeping--Group 1 External floating roof tank requirements - records of seal gap measurements (date, raw data, and required calculations)	Y	
63.123(g)	Storage Vessel Provisions -- Recordkeeping, Extensions for emptying storage vessel – keep documentation specified	Y	
40 CFR 63, Subpart CC	**National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries (06/23/2003) REQUIREMENTS FOR EXTERNAL FLOATING ROOF TANKS ALSO SUBJECT TO NSPS Subparts K OR Ka**		
63.640(c)(2)	Applicability and Designation of Storage Vessels	Y	
63.640(n)(5)	Applicability and Designation of Affected Source Overlap for Storage Vessels— Group 1 vessel also subject to NSPS, Subparts K or Ka only subject to 63 Subpart CC	Y	
63.646(a)	Storage Vessel Provisions-Group 1	Y	
63.646(b)(1)	Storage Vessel Provisions-Determine stored liquid % OHAP for group determination	Y	
63.646(b)(2)	Storage Vessel Provisions-Determine stored liquid % OHAP-method 18 to resolve disputes	Y	
63.646(c)	Storage Vessel Provisions—63 Subpart G exclusions for storage vessels [EFRs exempt from 63.119(c)(2)]	Y	
63.646(d)	Storage Vessel Provisions-References	Y	
63.646(d)(2)	Storage Vessel Provisions-References to April 22,1994	Y	
63.646(d)(3)	Storage Vessel Provisions-References to December 31, 1992	Y	
63.646(d)(4)	Storage Vessel Provisions-References to compliance dates in 63.100 of Subpart F	Y	
63.646(e)	Storage Vessel Provisions—Exceptions for compliance with inspection requirements of 63.120 of Subpart G – Not required to comply with provisions for gaskets, slotted membranes, and sleeve seals.	Y	
63.646(f)	Storage Vessel Provisions-Group 1 floating roof requirements	Y	
63.646(f)(1)	Storage Vessel Provisions—Group 1 floating roof requirements-	Y	

Table IV – BB.14
Source-Specific Applicable Requirements
NSPS K AND NSPS KA ZERO-GAP EXTERNAL FLOATING ROOF TANKS
NSPS K – S334 (TANK 107),
NSPS KA – S341 (TANK 208), S342 (TANK 209), S343 (TANK 210)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
	Covers or lids closed except when in use		
63.646(f)(2)	Storage Vessel Provisions-Group 1 floating roof requirements-Rim space vents requirements	Y	
63.646(f)(3)	Storage Vessel Provisions-Group 1 floating roof requirements-Automatic bleeder vents requirements	Y	
63.646(l)	Storage Vessel Provisions-State or local permitting agency notification requirements	Y	
63.655(f)	Reporting and Recordkeeping Requirements-Notice of compliance status report requirements	Y	
63.655(f)(1)	Reporting and Recordkeeping Requirements-Notice of compliance status report requirements	Y	
63.655(f)(1)(i)	Reporting and Recordkeeping Requirements-Notice of compliance status report requirements-Reporting--storage vessels	Y	
63.655(f)(1)(i)(A)	Reporting and Recordkeeping Requirements-Notice of compliance status report requirements-Reporting--storage vessels	Y	
63.655(f)(1)(i)(A)(1)	Reporting and Recordkeeping Requirements-Notice of compliance status report requirements-Reporting--storage vessels	Y	
63.655(g)	Periodic Reporting and Recordkeeping Requirements	Y	
63.655(g)(1)	Periodic Reporting and Recordkeeping Requirements-storage vessels [Information related to gaskets, slotted membranes, and sleeve seals not required for storage vessels that are part of existing source]	Y	
63.655(g)(3)	Periodic Reporting and Recordkeeping Requirements-storage vessels with external floating roofs	Y	
63.655(g)(3)(i)	Periodic Reporting and Recordkeeping Requirements-storage vessels with external floating roofs-document results of each seal gap measurement	Y	
63.655(g)(3)(ii)	Periodic Reporting and Recordkeeping Requirements-storage vessels with external floating roofs – extension documentation	Y	
63.655(g)(3)(iii)	Periodic Reporting and Recordkeeping Requirements-storage vessels with external floating roofs – documentation of failures	Y	
63.655(h)(2)	Reporting and Recordkeeping Requirements-Other reports-Storage vessel notification of inspections.	Y	
63.655(h)(2)(i)	Reporting and Recordkeeping Requirements-Other reports-Storage vessel notification of inspections – refilling Group 1 storage vessel.	Y	
63.655(h)(2)(ii)	Reporting and Recordkeeping Requirements-Other reports-Storage vessel notification of inspections –Group 1 storage vessel seal gap measurements – 30 day notification [can be waived or modified by state or local].	Y	
63.655(h)(6)	Reporting and Recordkeeping Requirements-Other reports-Determination of Applicability	Y	
63.655(h)(6)(ii)	Reporting and Recordkeeping Requirements-Other reports-Determination of Applicability	Y	
63.655(i)(1)	Reporting and Recordkeeping Requirements-Recordkeeping for storage vessels – keep records specified in 63.123 (Subpart G)	Y	
63.655(i)(1)(i)	Reporting and Recordkeeping Requirements-Recordkeeping for storage vessels– keep records specified in 63.123 (Subpart G) except records related to gaskets, slotted membranes, and sleeve seals for	Y	

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Source-Specific Applicable Requirements
NSPS K AND NSPS KA ZERO-GAP EXTERNAL FLOATING ROOF TANKS
NSPS K – S334 (TANK 107),
NSPS KA – S341 (TANK 208), S342 (TANK 209), S343 (TANK 210)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
	vessels in existing sources		
63.655(i)(4)	Reporting and Recordkeeping Requirements—Recordkeeping for storage vessels-Record retention – 5 years	Y	
BAAQMD Condition 22478	**Applies to S334**		
Part 4	~~Vapor pressure limit~~ Contents of tank limited to crude oil [Basis: BACT, cumulative increase]	Y	
Part 7	Throughput limit for S334 [Basis: cumulative increase]	Y	
Part 8b	BACT equipment requirements for ~~S123, S124, S186, and~~ S334 [Basis: BACT, cumulative increase]	Y	

Table IV – BB.17
Source-Specific Applicable Requirements
NSPS Ka External Floating Roof Tank w/~~o~~ Zero-Gap Seals
S340 (Tank 108)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
BAAQMD Regulation 8, Rule 5	**Organic Compounds, Storage of Organic Liquids (10/18/06) REQUIREMENTS FOR EXTERNAL FLOATING ROOF TANKS**		
8-5-111	Limited Exemption, Tank Removal From and Return to Service	N	
8-5-111.1	Limited Exemption, Tank Removal From and Return to Service, Notification	N	
8-5-111.2	Limited Exemption, Tank Removal From and Return to Service; Tank in compliance at time of notification	N	
8-5-111.3	Limited Exemption, Tank Removal From and Return to Service; Filling, emptying, refilling floating roof tanks	N	
8-5-111.5	Limited Exemption, Tank Removal From and Return to Service; Minimize emissions and, if required, degas per 8-5-328	N	
8-5-111.6	Limited Exemption, Tank Removal From and Return to Service; Self report if out of compliance during exemption period	N	
8-5-112	Limited Exemption, Preventative Maintenance and Inspection of Tanks in Operation	N	
8-5-112.1	Limited Exemption, Preventative Maintenance and Inspection of Tanks in Operation; Notification	N	
8-5-112.2	Limited Exemption, Preventative Maintenance and Inspection of Tanks in Operation; Tank in compliance at time of notification	N	
8-5-112.3	Limited Exemption, Preventative Maintenance and Inspection of Tanks in Operation; No product movement, Minimize emissions	N	
8-5-112.4	Limited Exemption, Preventative Maintenance and Inspection of Tanks in Operation; Not to exceed 7 days	N	
8-5-112.5	Limited Exemption, Preventative Maintenance and Inspection of Tanks in Operation; Self report if out of compliance during exemption period	N	
8-5-112.6	Limited Exemption, Preventative Maintenance and Inspection of Tanks in Operation; Keep records for each exemption	N	
8-5-119	Limited Exemption, Repair Period for Enhanced Monitoring Program	N	
8-5-301	Storage Tank Control Requirements	N	
8-5-304	Requirements for External Floating Roof Tanks	N	
8-5-304.1	Requirements for External Floating Roofs; Tank fittings	Y	
8-5-304.2	Requirements for External Floating Roofs; Primary seal (8-5-321)	Y	
8-5-304.3	Requirements for External Floating Roofs; Secondary seal (8-5-322)	Y	
8-5-304.4	Requirements for External Floating Roofs; Floating roof	N	
8-5-304.5	Requirements for External Floating Roofs; Tank shell	N	
8-5-304.6	Requirements for External Floating Roofs; Pontoons – no leaks	N	
8-5-304.6.1	Requirements for External Floating Roofs; Pontoons – make gas tight if leaking	N	
8-5-304.6.2	Requirements for External Floating Roofs; Pontoons-repair all leaks at next removal from service	N	
8-5-320	Floating Roof Tank Fitting Requirements	N	
8-5-320.2	Floating Roof Tank Fitting Requirements; Projection below liquid	N	

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Source-Specific Applicable Requirements
NSPS Ka External Floating Roof Tank w/~~o~~ Zero-Gap Seals
S340 (Tank 108)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
	surface		
8-5-320.3	Floating Roof Tank Fitting Requirements; Gasketed covers, seals, lids	N	
8-5-320.3.1	Floating Roof Tank Fitting Requirements; Gasketed covers, seals, lids - Gap requirements	Y	
8-5-320.4	Floating Roof Tank Fitting Requirements; Solid sampling or gauging wells--	N	
8-5-320.4.1	Floating Roof Tank Fitting Requirements; Solid sampling or gauging wells--projection below liquid surface	Y	
8-5-320.4.2	Floating Roof Tank Fitting Requirements; Solid sampling or gauging wells--cover, seal, or lid	Y	
8-5-320.4.3	Floating Roof Tank Fitting Requirements; Solid sampling or gauging wells-- total secondary seal gap must include well gap	Y	
8-5-320.6	Floating Roof Tank Fitting Requirements; emergency roof drains must be 90% covered	N	
8-5-321	Primary seal requirements	N	
8-5-321.1	Primary seal requirements; No holes, tears, or other openings	Y	
8-5-321.2	Primary seal requirements; The seal shall be metallic shoe or liquid mounted except as provided in 8-5-305.1.3	Y	
8-5-321.3	Primary seal requirements; Metallic-shoe-type seal requirements	N	
8-5-321.3.1	Primary seal requirements; Metallic-shoe-type seal requirements - geometry of shoe	N	
8-5-321.3.2	Primary seal requirements; Metallic-shoe-type seal requirements - welded tanks gap requirements	N	
8-5-322	Secondary seal requirements	N	
8-5-322.1	Secondary seal requirements; No holes, tears, or other openings	N	
8-5-322.2	Secondary seal requirements; Insertion of probes	N	
8-5-322.3	Secondary seal requirements; Gap requirements for all tanks	N	
8-5-322.5	Secondary seal requirements; Gap requirements for welded external floating roof tanks with seal installed after September 4, 1985	N	
8-5-322.6	Secondary seal requirements; extent of seal	N	
8-5-328	Tank degassing requirements	N	
8-5-328.1	Tank degassing requirements; Tanks > 75 cubic meters	N	
8-5-328.2	Tank degassing requirements; Ozone Excess Day Prohibition	N	
8-5-328.3	Tank degassing requirements; BAAQMD notification required	N	
8-5-401	Inspection Requirements for External Floating Roof Tanks	N	
8-5-401.1	Inspection Requirements for External Floating Roof Tanks; Primary and Secondary Seal Inspections	N	
8-5-401.2	Inspection Requirements for External Floating Roof Tanks; Tank Fittings Inspections	N	
8-5-404	Inspection, Abatement Efficiency Determination, and Source Test Reports	N	
8-5-411	Enhanced Monitoring Program (Optional)	N	
8-5-411.1	Enhanced Monitoring Program (Optional); Notify BAAQMD of tanks selected for enhanced monitoring program	N	
8-5-411.2	Enhanced Monitoring Program (Optional); Criteria for operating	N	

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Source-Specific Applicable Requirements
NSPS KA EXTERNAL FLOATING ROOF TANK W/~~O~~ ZERO-GAP SEALS
S340 (TANK 108)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
	enhanced monitoring program		
8-5-411.3	Enhanced Monitoring Program (Optional); Performance requirements	N	
8-5-412	Monitoring of Leaking Pontoons	N	
8-5-501	Records	N	
8-5-501.1	Records; Type and amount of liquid, type of blanket gas, TVP- Retain 24 months	N	
8-5-501.2	Records; Internal and External Floating Roof Tanks, Seal Replacement Records- Retain 10 years	N	
8-5-501.3	Records; Retention	N	
8-5-602	Analysis of Samples, True Vapor Pressure	Y	
8-5-604	Determination of Applicability Based on True Vapor Pressure	Y	
8-5-605	Measurement of Leak Concentration and Residual Concentrations	N	
8-5-605.1	Measurement of Leak Concentration and Residual Concentrations; EPA method 21 Instruments	N	
8-5-605.2	Measurement of Leak Concentration and Residual Concentrations; Method 21 and tank degassing residual organic concentration measurement method	N	
SIP Regulation 8, Rule 5	**Storage of Organic Liquids (06/05/03)**		
8-5-111	Limited Exemption, Tank Removal From and Return to Service	Y	
8-5-111.1	Limited Exemption, Tank Removal From and Return to Service; Notice to the APCO	Y	
8-5-111.1.1	Limited Exemption, Tank Removal From and Return to Service; Notice to the APCO; 3 day prior notification	Y	
8-5-111.1.2	Limited Exemption, Tank Removal From and Return to Service; Notice to the APCO; Telephone notification	Y	
8-5-111.2	Limited Exemption, Tank Removal From and Return to Service; Compliance before notification	Y	
8-5-111.3	Limited Exemption, Tank Removal From and Return to Service; Floating roof tanks - continuous and quick filling, emptying and refilling	Y	
8-5-111.5	Limited Exemption, Tank Removal From and Return to Service; Minimization of emissions	Y	
8-5-111.6	Limited Exemption, Tank Removal From and Return to Service; Written notice of completion not required	Y	
8-5-111.7	Limited Exemption, Tank Removal From and Return to Service; Compliance with Section 8-5-328	Y	
8-5-112	Limited Exemption, Tanks in Operation	Y	
8-5-112.1	Limited Exemption, Tanks in Operation; Notice to the APCO	Y	
8-5-112.1.1	Limited Exemption, Tanks in Operation; Notice to the APCO; 3 day prior notification	Y	
8-5-112.1.2	Limited Exemption, Tanks in Operation; Notice to the APCO; Telephone notification	Y	
8-5-112.2	Limited Exemption, Tanks in Operation; Compliance and certification before commencement of work per 8-5-404	Y	

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Source-Specific Applicable Requirements
NSPS KA EXTERNAL FLOATING ROOF TANK W/~~O~~ ZERO-GAP SEALS
S340 (TANK 108)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
8-5-112.3	Limited Exemption, Tanks in Operation; No product movement; minimization of emissions	Y	
8-5-112.4	Limited Exemption, Tanks in Operation; Exemption does not exceed 7 days	Y	
8-5-301	Storage Tank Control Requirements (internal floating roof, external floating roof, or approved emission control system)	Y	
8-5-304	Requirements for External Floating Roofs	Y	
8-5-304.4	Requirements for External Floating Roofs; Floating roof requirements	Y	
8-5-320	Tank fitting requirements – Floating roof tanks	Y	
8-5-320.2	Tank fitting requirements – Floating roof tanks, Projection below liquid surface	Y	
8-5-320.3	Tank fitting requirements – Floating roof tanks, Gasketed covers, seals, lids –	Y	
8-5-320.4	Tank Fitting Requirements; Solid sampling or gauging well requirements in floating roof tanks	Y	
8-5-320.6	Tank Fitting Requirements; Emergency roof drain	Y	
8-5-321	Primary seal requirements	Y	
8-5-321.3	Primary Seal Requirements; Metallic-shoe-type seal requirements	Y	
8-5-321.3.1	Primary Seal Requirements; Metallic-shoe-type seal requirements-geometry of shoe	Y	
8-5-321.3.2	Primary Seal Requirements; Metallic-shoe-type seal requirements-welded tanks	Y	
8-5-322	Secondary seal requirements	Y	
8-5-322.1	Secondary seal requirements; No holes, tears, or other openings	Y	
8-5-322.2	Secondary seal requirements; Insertion of probes	Y	
8-5-322.3	Secondary seal requirements; Seal gaps (applicable as long as secondary seal is not a zero-gap seal as defined in 8-5-322.5)	Y	
8-5-322.5	Secondary seal requirements; Gap for welded tanks with seal installed after September 4, 1985 (becomes applicable when secondary seal is considered newly installed and subject to zero-gap seal gap requirements)	Y	
8-5-322.6	Secondary seal requirements; extent of seal	Y	
8-5-328	Tank degassing requirements	Y	
8-5-328.1	Tank degassing requirements; Tanks > 75 cubic meters	Y	
8-5-328.1.2	Tank degassing requirements; Tanks > 75 cubic meters; Concentration of <10,000 ppm as methane after degassing	Y	
8-5-328.2	Tank degassing requirements; Ozone Excess Day Prohibition	Y	
8-5-401	Inspection Requirements for External Floating Roof Tanks	Y	
8-5-401.1	Inspection Requirements for External Floating Roof Tanks; Primary and Secondary Seal Inspections	Y	
8-5-401.2	Inspection Requirements for External Floating Roof Tanks; Tank Fittings Inspections	Y	
8-5-404	Certification	Y	
8-5-405	Information required	Y	
8-5-501	Records	Y	

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Source-Specific Applicable Requirements
NSPS KA EXTERNAL FLOATING ROOF TANK W/~~O~~ ZERO-GAP SEALS
S340 (TANK 108)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
8-5-501.1	Records; Type and amounts of liquid; true vapor pressure; Retain 24 months	Y	
8-5-501.2	Records; Internal and External Floating Roof Tanks; Seal Replacement Records – Retain 10 years	Y	
8-5-503	Portable hydrocarbon detector	Y	
40 CFR 60, Subpart Ka	**Standards of Performance for Storage Vessels for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984 (12/14/2000)**		
60.110a(a)	Applicability and Designation of Affected Facility	Y	
40 CFR 63, Subpart G	**SOCMI HON G (12/21/06) REQUIREMENTS FOR EXTERNAL FLOATING ROOF TANKS**		
63.119(a)	Storage Vessel Provisions -- Reference Control Technology	Y	
63.119(a)(1)	Storage Vessel Provisions -- Reference Control Technology-- Group 1, TVP < 76.6 kPa	Y	
63.119(c)	Storage Vessel Provisions -- Reference Control Technology-- External floating roof	Y	
63.119(c)(1)	Storage Vessel Provisions -- Reference Control Technology-- External floating roof seals	Y	
63.119(c)(1)(i)	Storage Vessel Provisions -- Reference Control Technology-- External floating roof double seals required	Y	
63.119(c)(1)(ii)	Storage Vessel Provisions -- Reference Control Technology-- External floating roof primary seal requirements – metallic shoe or liquid-mounted	Y	
63.119(c)(1)(iii)	Storage Vessel Provisions -- Reference Control Technology-- External floating roof seal requirements	Y	
63.119(c)(3)	Storage Vessel Provisions -- Reference Control Technology-- External floating roof--Must float on liquid	Y	
63.119(c)(3)(i)	Storage Vessel Provisions -- Reference Control Technology-- External floating roof --Must float on liquid except during initial fill	Y	
63.119(c)(3)(ii)	Storage Vessel Provisions -- Reference Control Technology-- External floating roof-- Must float on liquid except after completely emptied and degassed	Y	
63.119(c)(3)(iii)	Storage Vessel Provisions -- Reference Control Technology-- External floating roof -- Must float on liquid except when completely emptied before refilling	Y	
63.119(c)(4)	Storage Vessel Provisions -- Reference Control Technology-- External Floating Roof Operations, when not floating	Y	
63.120(b)	Storage Vessel Provisions -- Procedures to Determine Compliance--Compliance Demonstration--External floating roof	Y	
63.120(b)(1)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR seal gap measurement	Y	
63.120(b)(1)(i)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR with double seals - primary seal gap measurement – 5 year intervals	Y	

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Source-Specific Applicable Requirements
NSPS KA EXTERNAL FLOATING ROOF TANK W/~~O~~ ZERO-GAP SEALS
S340 (TANK 108)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
63.120(b)(1)(iii)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR with double seals - secondary seal gap measurement – annual requirement	Y	
63.120(b)(1)(iv)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR seal inspections prior to tank refill with organic HAP after not storing organic HAP for 1 year or longer	Y	
63.120(b)(2)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR seal gap determination methods	Y	
63.120(b)(2)(i)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR seal gap determination methods – roof not resting on legs	Y	
63.120(b)(2)(ii)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR seal gap determination methods – measure gaps around entire circumference of seal and measure width and length of gaps	Y	
63.120(b)(2)(iii)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR seal gap determination methods – determine total surface area of each gap	Y	
63.120(b)(3)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR primary seal gap calculation method – total surface area of primary seal gaps <= 212 cm2 per meter of vessel diameter. Maximum width <= 3.81 cm	Y	
63.120(b)(4)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR secondary seal gap calculation method – total surface area of secondary seal gaps <= 21.2 cm2 per meter of vessel diameter. Maximum width <= 1.27 cm	Y	
63.120(b)(5)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR primary seal additional requirements	Y	
63.120(b)(5)(i)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR primary seal additional requirements – metallic shoe seal – shoe geometry	Y	
63.120(b)(5)(ii)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR primary seal additional requirements – no holes, tears, or openings	Y	
63.120(b)(6)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR secondary seal requirements	Y	
63.120(b)(6)(i)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR secondary seal requirements – location and extent	Y	
63.120(b)(6)(ii)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR secondary seal requirements - no holes, tears or openings	Y	
63.120(b)(7)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR unsafe to perform seal measurements or inspect the tank	Y	
63.120(b)(7)(i)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR unsafe to perform seal measurements or	Y	

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Source-Specific Applicable Requirements
NSPS KA EXTERNAL FLOATING ROOF TANK W/~~O~~ ZERO-GAP SEALS
S340 (TANK 108)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
	inspect the tank – complete measurements or inspection within 30 days after determining roof is unsafe or comply with 63.120(b)(7)(ii)		
63.120(b)(7)(ii)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR unsafe to perform seal measurements or inspect the tank – empty and remove vessel from service within 45 days after determining roof is unsafe or comply with 63.120(b)(7)(i). Two 30 day extensions are allowed to empty the tank. Decision to use extension must be documented.	Y	
63.120(b)(8)	Storage Vessel Provisions -- Procedures to Determine Compliance External FR Repairs must be made within 45 days after identification or empty and remove tank from service. Two 30 day extensions are allowed to empty the tank. Decision to use extension must be documented.	Y	
63.120(b)(9)	Storage Vessel Provisions -- Procedures to Determine Compliance External FR seal gap measurement 30 day notification	Y	
63.120(b)(10)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR and seals visual inspection each time emptied	Y	
63.120(b)(10)(i)	Storage Vessel Provisions -- Procedures to Determine Compliance--External FR and seal visual inspection each time emptied – Repair defects before refilling [does not apply to gaskets, slotted membranes, or sleeve seals for Group 1 Refinery MACT tanks per 63.646(e)]	Y	
63.120(b)(10)(ii)	Storage Vessel Provisions -- Procedures to Determine Compliance-- External FR and seal visual inspection each time emptied – 30 day notification	Y	
63.120(b)(10)(iii)	Storage Vessel Provisions -- Procedures to Determine Compliance-- External FR and seal visual inspection each time emptied –-Notification for unplanned	Y	
63.123(a)	Storage Vessel Provisions -- Recordkeeping--Group 1 and Group 2 storage vessel dimensions and capacity. Keep for life of source.	Y	
63.123(d)	Storage Vessel Provisions -- Recordkeeping--Group 1 External floating roof tank requirements - records of seal gap measurements (date, raw data, and required calculations)	Y	
63.123(g)	Storage Vessel Provisions -- Recordkeeping, Extensions for emptying storage vessel – keep documentation specified	Y	
40 CFR 63, Subpart CC	**National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries (06/23/03) REQUIREMENTS FOR EXTERNAL FLOATING ROOF TANKS ALSO SUBJECT TO NSPS, Subparts K or Ka**		
63.640(c)(2)	Applicability and Designation of Storage Vessels	Y	
63.640(n)(5)	Applicability and Designation of Affected Source Overlap for Storage Vessels— Group 1 vessel also subject to NSPS, Subparts K or Ka only subject to 63 Subpart CC	Y	
63.646(a)	Storage Vessel Provisions-Group 1	Y	
63.646(b)(1)	Storage Vessel Provisions-Determine stored liquid % OHAP for	Y	

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Source-Specific Applicable Requirements
NSPS KA EXTERNAL FLOATING ROOF TANK W/~~O~~ ZERO-GAP SEALS
S340 (TANK 108)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
	group determination		
63.646(b)(2)	Storage Vessel Provisions-Determine stored liquid % OHAP-method 18 to resolve disputes	Y	
63.646(c)	Storage Vessel Provisions—63 Subpart G exclusions for storage vessels [EFRs exempt from 63.119(c)(2)]	Y	
63.646(d)	Storage Vessel Provisions-References	Y	
63.646(d)(2)	Storage Vessel Provisions-References to April 22,1994	Y	
63.646(d)(3)	Storage Vessel Provisions-References to December 31, 1992	Y	
63.646(d)(4)	Storage Vessel Provisions-References to compliance dates in 63.100 of Subpart F	Y	
63.646(e)	Storage Vessel Provisions—Exceptions for compliance with inspection requirements of 63.120 of Subpart G – Not required to comply with provisions for gaskets, slotted membranes, and sleeve seals.	Y	
63.646(f)	Storage Vessel Provisions-Group 1 floating roof requirements	Y	
63.646(f)(1)	Storage Vessel Provisions—Group 1 floating roof requirements-Covers or lids closed except when in use	Y	
63.646(f)(2)	Storage Vessel Provisions-Group 1 floating roof requirements-Rim space vents requirements	Y	
63.646(f)(3)	Storage Vessel Provisions-Group 1 floating roof requirements-Automatic bleeder vents requirements	Y	
63.646(l)	Storage Vessel Provisions-State or local permitting agency notification requirements	Y	
63.655(f)	Reporting and Recordkeeping Requirements-Notice of compliance status report requirements	Y	
63.655(f)(1)	Reporting and Recordkeeping Requirements-Notice of compliance status report requirements	Y	
63.655(f)(1)(i)	Reporting and Recordkeeping Requirements-Notice of compliance status report requirements-Reporting--storage vessels	Y	
63.655(f)(1)(i)(A)	Reporting and Recordkeeping Requirements-Notice of compliance status report requirements-Reporting--storage vessels	Y	
63.655(f)(1)(i)(A)(1)	Reporting and Recordkeeping Requirements-Notice of compliance status report requirements-Reporting--storage vessels	Y	
63.655(g)	Periodic Reporting and Recordkeeping Requirements	Y	
63.655(g)(1)	Periodic Reporting and Recordkeeping Requirements-storage vessels [Information related to gaskets, slotted membranes, and sleeve seals not required for storage vessels that are part of existing source]	Y	
63.655(g)(3)	Periodic Reporting and Recordkeeping Requirements-storage vessels with external floating roofs	Y	
63.655(g)(3)(i)	Periodic Reporting and Recordkeeping Requirements-storage vessels with external floating roofs-document results of each seal gap measurement	Y	
63.655(g)(3)(ii)	Periodic Reporting and Recordkeeping Requirements-storage vessels with external floating roofs – extension documentation	Y	
63.655(g)(3)(iii)	Periodic Reporting and Recordkeeping Requirements-storage vessels with external floating roofs – documentation of failures	Y	

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Source-Specific Applicable Requirements
NSPS Ka External Floating Roof Tank w/~~o~~ Zero-Gap Seals
S340 (Tank 108)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforce-able (Y/N)	Future Effective Date
63.655(h)(2)	Reporting and Recordkeeping Requirements-Other reports-Storage vessel notification of inspections.	Y	
63.655(h)(2)(i)	Reporting and Recordkeeping Requirements-Other reports-Storage vessel notification of inspections – refilling Group 1 storage vessel.	Y	
63.655(h)(2)(ii)	Reporting and Recordkeeping Requirements-Other reports-Storage vessel notification of inspections –Group 1 storage vessel seal gap measurements – 30 day notification [can be waived or modified by state or local].	Y	
63.655(h)(6)	Reporting and Recordkeeping Requirements-Other reports-Determination of Applicability	Y	
63.655(h)(6)(ii)	Reporting and Recordkeeping Requirements-Other reports-Determination of Applicability	Y	
63.655(i)(1)	Reporting and Recordkeeping Requirements-Recordkeeping for storage vessels – keep records specified in 63.123 (Subpart G)	Y	
63.655(i)(1)(i)	Reporting and Recordkeeping Requirements-Recordkeeping for storage vessels– keep records specified in 63.123 (Subpart G) except records related to gaskets, slotted membranes, and sleeve seals for vessels in existing sources	Y	
63.655(i)(4)	Reporting and Recordkeeping Requirements—Recordkeeping for storage vessels-Record retention – 5 years	Y	
~~**BAAQMD Condition 20989, Part A**~~	~~Throughput limits for sources S340 [Basis: 2-1-234.3]~~	~~Y~~	
BAAQMD Condition 25223			
Part 1	Throughput limit [cumulative increase]	Y	
Part 2	Equipment requirements [BACT, cumulative increase]	Y	
Part 3	Records [cumulative increase]	Y	

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Applicable Limits and Compliance Monitoring Requirements
NSPS Kb Zero gap External Floating Roof Tanks
S439 (Tank 109), S440 (Tank 110), S442 (Tank 112), S444 (Tank 243)

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD Regulation 8, Rule 5, Organic Compounds - STORAGE OF ORGANIC LIQUIDS LIMITS AND MONITORING FOR EXTERNAL FLOATING-ROOF TANKS						
VOC	BAAQMD 8-5-301 & SIP 8-5-301	Y		Record of liquids stored and true vapor pressure	BAAQMD 8-5-501.1 & SIP 8-5-501.1	periodic initially and upon change of service	records
VOC	BAAQMD 8-5-304.6.1	N		Leaking pontoons gas tight requirements	BAAQMD 8-5-412	P/Q until repaired	Method 21 portable hydrocarbon detector
VOC	BAAQMD 8-5-320 & SIP 8-5-320	Y		Floating roof fitting closure standards; includes gasketed covers	BAAQMD 8-5-401.2 & SIP 8-5-401.2	P/SA	Measurement and visual inspection
VOC	BAAQMD 8-5-321 & SIP 8-5-321	Y		Primary rim-seal standards; includes gap criteria	BAAQMD 8-5-401.1 & SIP 8-5-401.1	P/SA and every time a seal is replaced	Seal inspection
VOC	BAAQMD 8-5-322 & SIP 8-5-322	Y		Secondary rim-seal standards; includes gap criteria	BAAQMD 8-5-401.1 & SIP 8-5-401.1	P/SA and every time a seal is replaced	Seal inspection
VOC	BAAQMD 8-5-328.1	N		Residual organic concentration of < 10,000 ppm as methane after degassing	BAAQMD 8-5-328.1	P/each time emptied & degassed; 4 consecutive measurements at 15 minute intervals	Method 21 portable hydrocarbon detector
VOC	SIP 8-5-328.1.2	Y		Concentration of < 10,000 ppm as methane after degassing	SIP 8-5-503	periodic each time emptied & degassed	Portable hydrocarbon detector
VOC		Y		Records of tank seal replacement	BAAQMD 8-5-501.2	periodic after each tank seal replacement	records

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Applicable Limits and Compliance Monitoring Requirements
NSPS Kb Zero gap External Floating Roof Tanks
S439 (Tank 109), S440 (Tank 110), S442 (Tank 112), S444 (Tank 243)

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	40 CFR 60, Subpart Kb – NSPS for VOL Storage Vessels **40 CFR 63, Subpart CC – NESHAPS for Petroleum Refineries** **LIMITS AND MONITORING FOR EXTERNAL FLOATING ROOF TANKS**						
VOC	40 CFR 63.640 (n)(1), 60.112b (a)(2)(ii)	Y		Deck fitting closure standards; includes gasketed covers	40 CFR 63.640(n)(8), 60.113b (b)(6)	periodic initially & each time emptied & degassed	visual inspection
VOC	40 CFR 63.640 (n)(1), 60.113b (b)(4)(i)	Y		Primary rim-seal standards; includes gap criteria	40 CFR 63.640(n)(8), 60.113b (b)(1)-(b)(3)	periodic initially & at 5 yr intervals	measurement and visual inspection
VOC	40 CFR 63.640 (n)(1), 60.113b (b)(4)(ii)	Y		Secondary rim-seal standards; includes gap criteria	40 CFR 63.640(n)(8), 60.113b (b)(1)-(b)(3)	periodic initially & annually	measurement and visual inspection
VOC	40 CFR 63.640 (n)(1), 60.116b (c)	Y		Record of liquid stored and rue vapor pressure	40 CFR 63.640(n)(8), 60.116b (c) & (e)	periodic upon change of service	Records
VOC		Y		Seal inspection records for report in 60.115b(b)(2)	40 CFR 63.640(n)(8), 60.115b(b)(3)	periodic For each gap measurement	Records
VOC		Y		Inspection report for seal gap measurements	40 CFR 63.640(n)(8), 60.115b(b)(2)	periodic Within 60 days of seal gap measurement	Report
VOC		Y		Inspection report for non-compliant seals	40 CFR 63.640(n)(8), 60.115b(b)(4)	periodic Within 30 days of seal inspection	Report
	BAAQMD PERMIT CONDITIONS						
The following applies to S439 only							
~~throughput~~	~~BAAQMD Condition 12124, Part 1~~	~~Y~~		~~3,650,000 bbl/yr of gasoline, petroleum fluids~~	~~BAAQMD Condition 12124, Part 3~~4	~~P/M~~	~~records~~
throughput	BAAQMD Condition 12124, Part 2	Y		10,0000,000 bbl/yr of crude oil	BAAQMD Condition 12124, Part 4	P/M	records

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Applicable Limits and Compliance Monitoring Requirements
NSPS Kb Zero gap External Floating Roof Tanks
S439 (Tank 109), S440 (Tank 110), S442 (Tank 112), S444 (Tank 243)

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
The following applies to S440 only							
throughput	BAAQMD Condition 12125, Part 1	Y		3,600,000 bbl/yr	BAAQMD Condition 12125, Part 3	P/M	records
The following applies to S442 only							
throughput	BAAQMD Condition 12127, Part 1	Y		2,740,000 bbl/yr	BAAQMD Condition 12127, Part 3	P/M	records
The following applies to S444 only							
throughput	BAAQMD Condition 12129, Part 1	Y		4,380,000 bbl/yr	BAAQMD Condition 12129, Part 3	P/M	records

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Applicable Limits and Compliance Monitoring Requirements
NSPS K and NSPS Ka Zero-Gap External Floating Roof Tanks
NSPS K - S334 (Tank 107),
NSPS Ka - S341 (Tank 208), S342 (Tank 209), S343 (Tank 210)

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD Regulation 8, Rule 5, Organic Compounds - STORAGE OF ORGANIC LIQUIDS LIMITS AND MONITORING FOR EXTERNAL FLOATING-ROOF TANKS						
VOC	BAAQMD 8-5-301	Y		Record of liquids stored and true vapor pressure	BAAQMD 8-5-501.1	periodic initially and upon change of service	Records
VOC	BAAQMD 8-5-320	Y		Floating roof fitting closure standards; includes gasketed covers	BAAQMD 8-5-401.2	P/SA	Measurement and visual inspection
VOC	BAAQMD 8-5-321	Y		Primary rim-seal standards; includes gap criteria	BAAQMD 8-5-401.1	P/SA and every time a seal is replaced	Seal inspection

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Applicable Limits and Compliance Monitoring Requirements
NSPS K AND NSPS KA ZERO-GAP EXTERNAL FLOATING ROOF TANKS
NSPS K - S334 (TANK 107),
NSPS KA - S341 (TANK 208), S342 (TANK 209), S343 (TANK 210)

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
VOC	BAAQMD 8-5-322	Y		Secondary rim-seal standards; includes gap criteria	BAAQMD 8-5-401.1	P/SA and every time a seal is replaced	Seal inspection
VOC	BAAQMD 8-5-328.1.2	Y		Concentration of < 10,000 ppm as methane after degassing	BAAQMD 8-5-503	periodic each time emptied & degassed	Portable hydrocarbon detector
VOC		Y		Certification reports on tank inspections and source tests	BAAQMD 8-5-404 8-5-405	periodic after each tank inspection and source test	Reports
VOC		Y		Records of tank seal replacement	BAAQMD 8-5-501.2	periodic after each tank seal replacement	Records
VOC		Y		Determination of applicability	BAAQMD 8-5-604	P/E	look-up table or sample analysis
	40 CFR 60, Subpart K – NSPS for Petroleum Storage Vessels (note 2) **40 CFR 60, Subpart Ka – NSPS for Petroleum Storage Vessels (note 3)** **40 CFR 63, Subpart G – SOCMI HON** **40 CFR 63, Subpart CC – NESHAPS for Petroleum Refineries** **LIMITS AND MONITORING FOR EXTERNAL FLOATING ROOF TANKS**						
HAP	40 CFR 63.640(n)(5) 63.646(f)	Y		Deck fitting closure standards	40 CFR 63.640(n)(5) 63.646 (a) & (e) 63.120 (b)(10)	periodic initially & each time emptied & degassed	visual inspection
HAP	40 CFR 63.640(n)(5) 63.646(a) 63.120 (b)(3)&(5)	Y		Primary rim-seal standards; includes gap criteria	40 CFR 63.640(n)(5) 63.646(a) 63.120 (b)(1) & (2)	periodic initially & at 5 yr intervals	measurement and visual inspection
HAP	40 CFR 63.640(n)(5) 63.646(a) 63.120 (b)(4)&(6)	Y		Secondary rim-seal standards; includes gap criteria	40 CFR 63.640(n)(5) 63.646(a) 63.120 (b)(1) & (2)	periodic initially & annually	measurement and visual inspection

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Applicable Limits and Compliance Monitoring Requirements
NSPS K AND NSPS KA ZERO-GAP EXTERNAL FLOATING ROOF TANKS
NSPS K - S334 (TANK 107),
NSPS KA - S341 (TANK 208), S342 (TANK 209), S343 (TANK 210)

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD PERMIT CONDITIONS						
throughput	BAAQMD Condition 20989, Part A	Y		S341: 4.38 E 7 bbl/yr S342: 4.38 E 7 bbl/yr S343: 4.38 E 7 bbl/yr	BAAQMD Condition 20989, Part A	P/M	Records
throughput	BAAQMD Condition 22478, Part 7	Y		S334: ~~6.51~~10 E 6 bbl/yr	BAAQMD 8-5-501.1	periodic initially and upon change of service	Records
~~Vapor pressure~~	~~BAAQMD Condition 22478, Part 4~~	~~Y~~		~~S334: < 5.8 psia~~	~~BAAQMD 8-5-501.1~~	~~periodic initially and upon change of service~~	~~Records~~

2. Tanks subject to 63 Subpart CC (MACT) and NSPS K are subject only to MACT per 63.640(n)(5). Source S334 (Tank 107) is subject to NSPS K and MACT.
3. Tanks subject to 63 Subpart CC (MACT) and NSPS Ka are subject only to MACT per 63.640(n)(5). Sources S341 (Tank 208), S342 (Tank 209), and S343 (Tank 210) are subject to NSPS Ka and MACT.

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Applicable Limits and Compliance Monitoring Requirements
NSPS KA EXTERNAL FLOATING ROOF TANK W/~~O~~ ZERO-GAP SEALS
S340 (TANK 108)

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD Regulation 8, Rule 5, Organic Compounds - STORAGE OF ORGANIC LIQUIDS LIMITS AND MONITORING FOR EXTERNAL FLOATING-ROOF TANKS						
VOC	BAAQMD 8-5-301	Y		Record of liquids stored and true vapor pressure	BAAQMD & SIP 8-5-501.1	periodic initially and upon change of service	Records
VOC	BAAQMD 8-5-304.6.1	N		Leaking pontoons gas tight requirements	BAAQMD 8-5-412	P/Q until repaired	Method 21 portable hydrocarbon detector
VOC	BAAQMD & SIP 8-5-320	Y		Floating roof fitting closure standards; includes gasketed covers	BAAQMD & SIP 8-5-401.2	P/SA	Measurement and visual inspection
VOC	BAAQMD & SIP 8-5-321	Y		Primary rim-seal standards; includes gap criteria	BAAQMD & SIP 8-5-401.1	P/SA and every time a seal is replaced	Seal inspection
VOC	BAAQMD & SIP 8-5-322	Y		Secondary rim-seal standards; includes gap criteria	BAAQMD & SIP 8-5-401.1	P/SA and every time a seal is replaced	Seal inspection
VOC	BAAQMD 8-5-328.1	N		Residual organic concentration of < 10,000 ppm as methane after degassing	BAAQMD 8-5-328.1	P/each time emptied & degassed; 4 consecutive measurements at 15 minute intervals	Method 21 portable hydrocarbon detector
VOC	SIP 8-5-328.1.2	Y		Concentration of < 10,000 ppm as methane after degassing	SIP 8-5-503	periodic each time emptied & degassed	Portable hydrocarbon detector
VOC		Y		Records of tank seal replacement	BAAQMD 8-5-501.2	periodic after each tank seal replacement	records

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Applicable Limits and Compliance Monitoring Requirements
NSPS KA EXTERNAL FLOATING ROOF TANK W/~~O~~ ZERO-GAP SEALS
S340 (TANK 108)

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	40 CFR 60 Subpart Ka – NSPS for Petroleum Storage Vessels (Note 2) **40 CFR 63 Subpart CC – NESHAPS for Petroleum Refineries** **40 CFR 63 Subpart G – SOCMI HON** **LIMITS AND MONITORING FOR EXTERNAL FLOATING ROOF TANKS**						
HAP	40 CFR 63.640(n)(5) 63.646(f)	Y		Deck fitting closure standards	40 CFR 63.640(n)(5) 63.646 (a) & (e) 63.120 (b)(10)	periodic initially & each time emptied & degassed	visual inspection
HAP	40 CFR 63.640(n)(5) 63.646(a) 63.120 (b)(3)&(5)	Y		Primary rim-seal standards; includes gap criteria	40 CFR 63.640(n)(5) 63.646(a) 63.120 (b)(1) & (2)	periodic initially & at 5 yr intervals	measurement and visual inspection
HAP	40 CFR 63.640(n)(5) 63.646(a) 63.120 (b)(4)&(6)	Y		Secondary rim-seal standards; includes gap criteria	40 CFR 63.640(n)(5) 63.646(a) 63.120 (b)(1) & (2)	periodic initially & annually	measurement and visual inspection
	BAAQMD PERMIT CONDITIONS						
~~throughput~~	~~BAAQMD Condition 20989, Part A~~	~~Y~~		~~7.67 E 6 bbl/yr~~	~~BAAQMD Condition 20989, Part A~~	~~P/M~~	~~Records~~
throughput	BAAQMD Condition 25223, part 1	Y		10 E 6 bbl/yr	BAAQMD Condition 25223, part 3	P/M	Records

2. Tanks subject to 63 Subpart CC (MACT) and NSPS Ka are subject only to MACT per 63.640(n)(5). Source S340 (Tank 108) is subject to NSPS Ka and MACT.