Bay Area Air Quality Management District

939 Ellis Street
San Francisco, CA 94109
(415) 771-6000

Statement of Basis
for
RENEWAL of

MAJOR FACILITY REVIEW PERMIT

for

Plains Products Terminals, LLC
Facility # A7034

Facility Address:
2801 Waterfront Road
Martinez, CA 94553

Mailing Address:
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Martinez, CA 94553

Application Engineer: Art Valla
Site Engineer: Xuna Cai

Application:
23957

April 2015

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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) more than 100 tons per year of a regulated air pollutant, and 10 tons per year of a hazardous air pollutant, or more than 25 tons per year of a combination of hazardous air pollutants.

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.

Pursuant to Regulation 2, Rule 6, section 416, the District has reviewed the terms and conditions of this Major Facility Review permit and determined that they are still valid and correct. This review included an analysis of applicability determinations for all sources, including those that have been modified or permitted since the issuance of the renewed Major Facility Review Permit. The review also included an assessment of all monitoring in the permit for sufficiency to determine compliance. The statement of basis documents for permit revisions that have occurred since the renewed Major Facility Review permit was issued are hereby incorporated by reference and are available upon request.

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 A7034.

This facility received its initial Title V permit on March 12, 2001 under Shore Terminals, LLC (formerly known as Wickland Oil Company). The facility received is first renewed Title V permit on April 23, 2007 under Pacific Atlantic Terminals, LLC. This application is for a second permit renewal. Although the current permit expired on April 22, 2012, it continues in force until the District takes final action on the permit renewal. The proposed permit shows all changes to the permit in strikeout/underline format.

B. Facility Description

The facility is a terminal for hire that leases tanks and provides transfer services to other companies. The facility does not own any products themselves. The facility receives gasoline and petroleum products, and distributes them, either by pipelines or marine vessels.

This terminal includes fifteen fixed roof tanks, four external floating roof tanks, fifteen internal floating roof tanks, one marine loading/unloading wharf, one direct fired heater, one oil-water separator, and two emergency diesel generators. The fifteen fixed roof tanks that store gasoline or petroleum products, and the marine loading wharf are abated by one common thermal oxidizer (A-1).

The facility has submitted 7 applications since the Major Facility Review permit was renewed on April 23, 2007. Following is a list of these applications. This list includes applications that were submitted prior to, but not included in the renewed permit.

Application #	Description	Date of Receipt
14726	Minor Revision for NSR Application 13774, New Storage Tanks S-81, S-82 and S-83, and Minor Revision for NSR Application 15163 New Storage Tanks S-84, S-85, S-86, S-87, S-88, S-89 and S-90, Issued 10/6/2008	6/7/2006
14653	Minor Revision for NSR Application 14652, A-2 Trailer Mounted Combustor, Issued 6/19/2008	5/18/2006
N/A	Minor Revision for NSR Application 15676, New Low NOx Burners for S-73	N/A
19756	Minor Revision for NSR Application 18800, S-73 Burner Replacement	1/23/2009
21193	Minor Revision for NSR Application 20996, S-91 Emergency Firewater Pump	10/15/2009
23223	Minor Revision for NSR Application 23218, S-30 Oil/Water Separator	4/1/2011
23957	Title V Permit Renewal	11/22/2011

In addition, the facility has submitted 3 applications since the application for a permit renewal was submitted. Following is a list of these applications:

Application #	Description	Date of Receipt
24412	Minor Revision for NSR Application 24356, S-73 Change of Conditions	4/27/2012
24632	Minor Revision for NSR Application 24630, Vapor Bladder Tank Abatement System	7/5/2012
25914	Minor Revision for NSR Application 25907, S-30 Oil/Water Separator Throughput Increase	12/11/2013

Emission increases associated with the permit applications above are summarized in the following table:

Application-Description	Potential to Emit, Tons/yr				
	Organic	NOx	CO	PM	SO2
14726-- Minor Revision for NSR Application 13774, New Storage Tanks S-81, S-82 and S-83	**6.796**	**0**	**0**	**0**	**0**
14653 -- Minor Revision for NSR Application 14652, A-2 Trailer Mounted Combustor	**0**	**0**	**0**	**0**	**0**
17214 -- Minor Revision for NSR Application 15163 New Storage Tanks S-84, S-85, S-86, S-87, S-88, S-89 and S-90	**16.589**	**0**	**0**	**0**	**0**
19756 -- Minor Revision for NSR Application 18800, S-73 Burner Replacement	**0**	**0**	**0**	**0**	**0**
21193 -- Minor Revision for NSR Application 20996, S-91 Emergency Firewater Pump	**0.003**	**0.061**	**0.011**	**0.002**	**0**
23223 -- Minor Revision for NSR Application 23218, S-30 Oil/Water Separator	**0.050**	**0**	**0**	**0**	**0**
24412 -- Minor Revision for NSR Application 24356, S-73 Change of Conditions	**0**	**0**	**0**	**0**	**0**
24632 -- Minor Revision for NSR Application 24630, Vapor Bladder Tank Abatement System	**0.007**	**0**	**0**	**0**	**0**

Application-Description	Potential to Emit, Tons/yr				
	Organic	NOx	CO	PM	SO2
25914 -- Minor Revision for NSR Application 25907, S-30 Oil/Water Separator Throughput Increase	**0.065**	**0**	**0**	**0**	**0**
Total Emissions Increase	**23.510**	**0.061**	**0.011**	**0.002**	**0.000**

Increases in HAP emissions are summarized in the following table:

Application-Description	Potential to Emit, Tons/yr
	Benzene
14726-- Minor Revision for NSR Application 13774, New Storage Tanks S-81, S-82 and S-83	**0.118**
17214 -- Minor Revision for NSR Application 15163 New Storage Tanks S-84, S-85, S-86, S-87, S-88, S-89 and S-90	**0.253**
Total Emissions Increase	**0.371**

C. Permit Content

The legal and factual basis for the permit 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. If the Title IV (Acid Rain) requirements for certain fossil-fuel fired electrical generating facilities or the accidental release (40 CFR § 68) programs apply, the section will contain a standard condition pertaining to these programs. Many of these conditions derive from 40 CFR § 70.6, Permit Content, which dictates certain standard conditions that must be placed in the permit. The language that the District has developed for many of these requirements has been adopted into the BAAQMD Manual of Procedures, Volume II, Part 3, Section 4, and therefore must appear in the permit.

The standard conditions also contain references to BAAQMD Regulation 1 and Regulation 2. These are the District's General Provisions and Permitting rules.

Changes to permit:

1. The dates of adoption and approval of rules in Standard Condition 1.A have been updated.

2. BAAQMD Regulation 2, Rule 5 - New Source Review of Toxic Air Contaminants and SIP Regulation 2, Rule 6 - Permits, Major Facility Review have been added to Standard Condition 1.A.

3. Standard Condition I.J has been expanded to clarify that the capacity limits shown in Table II-A are enforceable limits, consistent with other Title V permits issued by the District.

4. Standard Condition I.K, Accidental Release, has been added.

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 per year of a "regulated air pollutant" (as defined in BAAQMD Rule 2-6-222) or 400 pounds per year of a "hazardous air pollutant" (as defined in BAAQMD Rule 2-6-210).

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., A-24). If a source is also an abatement device, such as when an engine controls VOC emissions, it will be listed in the abatement device table but will have an "S" number. An abatement device may also be a source (such as a thermal oxidizer that burns fuel) of secondary emissions. If the primary function of a device is to control emissions, it is considered an abatement (or "A") device. If the primary function of a device is a non-control function, the device is considered to be a source (or "S").

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 a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. These 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.

Previous Title V permits for this facility did not include throughput limits for sources. As part of the factual basis of the permit, current District practice is to add enforceable or reporting only limits to all sources with no existing throughput or emissions limits. For sources permitted relatively recently, this is a straight forward task because throughput limits are explicitly stated in permit conditions. However, for older sources, explicit throughput limits were not placed in permit conditions, and a review of the permitting history is necessary to determine the implicit

throughput limits that were the basis of permit applications and analyses. For sources that were in operation prior to federal requirements and were never permitted through NSR review (aka "Grandfathered" sources), throughput limits for reporting purposes only are very difficult to determine. These limits can be based on design data, hydraulic limits, equipment bottlenecks, etc.

There was much discussion regarding the throughput limits associated with the sources associated with this facility. Two components of the historical facility permitting complicated the derivation of throughput limits. The first component is the multiple owners of the facility, and the missing or incomplete records available to the current owner. The second component is that this facility operates under a facility emissions cap (aka, a "Bubble").

Initially, based on the initial date of operation, it was thought sources S-1 through S-28 were grandfathered sources that were never granted an Authority to Construct by the District. However, records have been located that indicate that S-13, S-14, S-15, S-16 (external floating roof tanks) and S-21 (marine terminal) were modified and granted an Authority to Construct in 1987 via (former owner) Landsea Application 31392, and are therefore not grandfathered per Regulation 2-1-234. This permit application was complex and processing was lengthy. Complete records are problematic because the permit was contentious. Available records indicate permitting began in 1984 when Landsea was first notified that it was operating in violation of District regulations, initially recommended for denial, and subsequently litigated prior to resolution with the 1987 Authority to Construct (that created the facility emissions cap).

There is indication that the other sources, all fixed roof tanks, were also subject to NSR because all of these tanks are abated, an existing and long time BACT requirement. However, all of these sources are in the facility bubble that was created by the Landsea application. Sources can be part of a facility bubble without being subject to BACT review (since the purpose of a bubble is often to establish an emissions limit in order to address offsets from new or modified sources, and in this case only the new or modified sources are subject to BACT). In the case of Landsea Application 31392, it is clear that the fixed roof tanks were included in the bubble that was created to permit S-13, S-14, S-15, S-16 and S-21, but it is not clear if these fixed roof tanks tanks are grandfathered sources.

There was no complete resolution of these throughput limits issues. The facility believes that, consistent with its interpretation of the intent of Landsea Application 31392 and Emissions Cap Permit Condition 1253, these implicit limits are not valid, and that the terminal is permitted to store crude oil, gasoline, and any organic material, at any throughput, in these tanks as long as it complies with the facility emissions cap, and that the Toxic Air Contaminant (TAC) profile of the organic liquid does not exceed the gasoline TAC profile. The facility proposed not to include any throughput limits or any specification of the permitted materials for a source, consistent with the current Title V permit. The District did not agree with this proposal. The District agrees that, if a facility emissions cap is properly updated to reflect changes due to permitting actions and emission reductions required by rule development, the current emissions cap is a valid firm emissions limit for the group of sources subject to the emissions cap. However, as explained in more detail in Section C.VI, pursuant to Regulations 2-2-101, 2-1-234, and 2-1-301, each individual source subject to the facility emissions cap is also subject to Regulation 2, Rule 2, New Source Review when any physical, throughput or operational change can or may increase emissions from that individual source. An Authority to Construct for any such change is

required. In addition, if the stored materials contain Toxic Air Contaminants (TAC), these sources are also subject to the requirements of Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants. The facility emissions cap does not include TAC limits. Therefore, any TAC changes or increases need to be reviewed by the District.

The District determined that the Equipment section of this Title V permit will not contain individual source limits if either no limit exists or if only implicit limits exist, but will instead refer to the Facility Emissions Cap and the Basis will be NSR Application 31392. The currently permitted materials will be included in the Description for all sources in the permit.

Changes to permit:

1. Added a new column to Table II-A Permitted Sources identifying the source limit and basis, consistent with other Title V permits issued by the District.
2. Added the materials currently permitted for storage in each of the storage tanks. As explained above, this information is part of the factual basis of the permit.
3. Added the Facility Emissions Cap Condition 1253 in the Capacity column of the storage tanks that do not have firm throughput limits. The basis for this limit is 1987 NSR Application 31392 when the Emissions Cap was created.
4. Removed S-8 which was modified to serve as A-3 Vapor Bladder Tank.
5. Corrected the capacities of S-3, S-4, S-5, S-6 and S-7.
6. Removed S-23 and S-24 which were replaced by added S-30 Oil/Water Separator.
7. Updated the capacity and information for S-73 Fired Heater.
8. Removed S-74 Emergency Diesel Generator which was taken out of service.
9. Added throughput limits for storage tanks S-76 through S-90.
10. Added S-91 new Emergency Firewater Pump.

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" as defined in BAAQMD Rule 2-6-239.

Changes to permit:

Table III has been updated by adding the following rules and standards to conform to current practice:

- BAAQMD and SIP Regulation 2, Rule 2, New Source Review
- BAAQMD and SIP Regulation 2, Rule 4, Emissions Banking

- BAAQMD and SIP Regulation 2, Rule 6, Major Facility Review
- BAAQMD Regulation 2, Rule 9, Interchangeable Emission Reduction Credits
- BAAQMD and SIP Regulation 3, Fees
- BAAQMD Regulation 6, Particulate Matter and Visible Emissions has been designated as SIP Regulation 6, since the rule has been renamed and renumbered as Regulation 6, Rule 1, Particulate Matter, General Provisions
- SIP Regulation 8, Rule 2, Organic Compounds, Miscellaneous Operations
- SIP Regulation 8, Rule 3, Organic Compounds, Architectural Coatings
- BAAQMD Regulation 8, Rule 33, Organic Compounds, Gasoline Bulk Terminals And Gasoline Cargo Tanks was deleted since the Loading Rack has been removed from service.
- SIP Regulation 8, Rule 40, Organic Compounds, Aeration of Contaminated Soil and Removal of Underground Storage Tanks
- SIP Regulation 8, Rule 47, Organic Compounds, Air Stripping and Soil Vapor Extraction Operations
- SIP Regulation 9, Rule 1, Inorganic Gaseous Pollutants, Hydrogen Sulfide
- BAAQMD Regulation 9, Rule 2,Inorganic Gaseous Pollutants, Hydrogen Sulfide
- California Health and Safety Code Section 93116, Portable Engine ATCM
- 40 CFR Part 82, Subpart F, Protection of Stratospheric Ozone; Recycling and Emissions Reduction
- 40 CFR Part 82, Subpart H, P rotection of Stratospheric Ozone; Halon Emissions Reduction

The dates of adoption or approval of the rules and their "federal enforceability" status in Table III have also been updated.

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 or EPA 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.

Applicability of Federal Regulations to Storage Tanks.

The following table summarizes the storage tank applicability determination.

NSPS 40 CFR 60, Subpart K						
Tank Size		Date of Construction or Modification		True Vapor Pressure	Standard or Requirement	Reference
m3	Gallons	After	Before	psia		40 CFR
151.4 to 246.1	40,000 to 65,000	3/8/1974	5/19/1978	1.5 - 11.1	Floating roof or vapor recovery	60.112(a)(2)
> 246.1	> 65,000	6/11/1973	5/19/1978	> 11.1	Vapor Recovery	60.112(a)(1)
NSPS 40 CFR 60, Subpart Ka						
Tank Size		Date of Construction or Modification		True Vapor Pressure	Standard or Requirement	Reference
m3	Gallons	After	Before	psia		40 CFR
> 151.4	> 40,000	5/19/1978	7/23/1984	1.5 - 11.1	Floating roof or vapor recovery	60.112a(a)
				> 11.1	Vapor Recovery	60.112a(b)
NSPS 40 CFR 60, Subpart Kb						
Date of Construction or Modification		Tank Size		True Vapor Pressure	Standard or Requirement	Reference
After	Before	m3	Gallons	psia		40 CFR
7/23/1984	N/A	< 151	< 39,894	< 0.5	Exempt	60.110b(b)
		> 75 < 151	> 19,815 < 39,894	< 2.17	Exempt	60.110b(b)
		> 151	>39,894	0.75 - 11.1	1. IFR 2. EFR 3. Vapor Recovery	60.112b(a)
		> 75 < 151	> 19,815 < 39,894	4.00 - 11.1		
		> 75	> 19,815	> 11.1	Vapor Recovery and Control	60.112b(b)(1)

NESHAPS MACT 40 CFR 63, Subpart R						
Date of Construction or Modification		Tank Size		True Vapor Pressure	Standard or Requirement	Reference
After	Before	m3	Gallons	psia		40 CFR
Any Tank in Gasoline Service		>75	> 19,815	Any	40 CFR 60 Subpart Kb	63.423(a)

Fixed Roof Tanks S-1 through S-10 were constructed before 1978, have a capacity over 65,000 gallons, and are permitted to store gasoline. Therefore, these tanks are subject to NSPS Subpart K by date of construction, and MACT Subpart R, and therefore are subject to parts of NSPS Subpart Kb.

Fixed Roof Tanks S-11, S-18 and S-19 were constructed before 1978, are permitted to store gasoline, but have a capacity less than 40,000 gallons. Therefore, they are not subject to NSPS Subpart K or MACT Subpart R.

Fixed Roof Tank S-12 was constructed before 1978, is permitted to store gasoline, and has a capacity greater than 19,815 gallons. Therefore, it is not subject to NSPS Subpart K but is subject MACT Subpart R, and therefore is subject to parts of NSPS Subpart Kb.

External Floating Roof Tanks S-13 through S-16 were modified and granted an Authority to Construct on 9/25/1987 and have a capacity over 39,894 gallons. Therefore, they are subject to NSPS Subpart Kb. These tanks are not permitted to store gasoline. Therefore, they are not subject to MACT Subpart R.

Fixed Roof Tanks S-27 and S-28 were constructed in 1980 and permitted to former terminal owner UCO Oil Company. They have a capacity over 40,000 gallons and are permitted to store gasoline. Therefore, these tanks are subject to NSPS Subpart Ka by date of construction, and MACT Subpart R, and therefore are subject to parts of NSPS Subpart Kb.

Internal Floating Roof Tanks S-76 through S-90 were constructed after 1984, have a capacity over 39,894 gallons, and are permitted to store gasoline. Therefore, these tanks are subject to NSPS Subpart Kb and MACT Subpart R.

Changes to permit:

1. Headings have been added to the tank tables indicating the general applicability criteria.
2. In Table IV-A, for Fixed Roof Tanks S-1 through S-10, BAAQMD Regulation 8, Rule 5 was updated due to the rule amendment 10/18/2006, SIP Regulation 8, Rule 5 was added, BAAQMD Regulation 10 was added, 40 CFR 60 Subparts A and K were revised to include missing citations, 40 CFR 60 Subpart Kb citations were added as required by 40 CFR 63 Subpart R, 40 CFR 63 Subpart A was revised to include missing citations, and BAAQMD Condition 1253, Part IIID, Schedule D was clarified indicating the Organic Emission Factor of 1.44 lb/1000 barrels for the Vapor Recovery System is an assumed factor used in determining compliance with the Part IB facility emission cap limit.
3. Moved S-18 and S-19 from Table IV-C to Table IV-B because the capacity of each tank is 12,000 gallons.

4. In Table IV-B, for Fixed Roof Tanks S-11, S-18 and S-19, BAAQMD Regulation 8, Rule 5 was updated due to the rule amendment 10/18/2006, SIP Regulation 8, Rule 5 was added, and BAAQMD Condition 1253, Part IIID, Schedule D was added.
5. In Table IV-C, for Fixed Roof Tank S-12, BAAQMD Regulation 8, Rule 5 was updated due to the rule amendment 10/18/2006, SIP Regulation 8, Rule 5 was added, BAAQMD Regulation 10 was added, 40 CFR 60 Subpart Kb citations were added as required by 40 CFR 63 Subpart R, 40 CFR 63 Subpart A was revised to include missing citations, and BAAQMD Condition 1253, Part IIID, Schedule D was clarified indicating the Organic Emission Factor of 1.44 lb/1000 barrels for the Vapor Recovery System is an assumed factor used in determining compliance with the Part IB facility emission cap limit.
6. In Table IV-D, for External Floating Roof Tanks S-13 through S-16, BAAQMD Regulation 8, Rule 5 was updated due to the rule amendment 10/18/2006, SIP Regulation 8, Rule 5 was added, BAAQMD Regulation 10 was added, 40 CFR 60 Subparts A was revised to include missing citations, 40 CFR 60 Subpart K was deleted and Subpart Kb citations were added, 40 CFR 63 Subpart A and Subpart R were deleted since these tanks are not permitted to store gasoline.
7. In Table IV-F for S-21 Marine Vessel Loading Wharf, BAAQMD Regulation 9, Rule 1 Sulfur Dioxide was added and updates, corrections and clarifications were made to the other District and Federal Regulations.
8. In Table IV-G for S-30 Oily Water Separator, S-23 and S-24 were removed and S-30 was added, SIP Regulation 8, Rule 8 was added, and BAAQMD Permit Condition 24966 was added.
9. In Table IV-H, for Fixed Roof Tanks S-27 and S-28, BAAQMD Regulation 8, Rule 5 was updated due to the rule amendment 10/18/2006, SIP Regulation 8, Rule 5 was added, BAAQMD Regulation 10 was added, 40 CFR 60 Subpart A was revised to include missing citations, 40 CFR 60 Subpart Kb citations were added as required by 40 CFR 63 Subpart R, 40 CFR 63 Subpart A was revised to include missing citations, and BAAQMD Condition 1253, Part IIID, Schedule D was clarified indicating the Organic Emission Factor of 1.44 lb/1000 barrels for the Vapor Recovery System is an assumed factor used in determining compliance with the Part IB facility emission cap limit.
10. In Table IV-I for S-73 Direct Fired Heater, BAAQMD Regulation 6, Rule 1 was updated due to the rule amendment 12/5/2007, SIP Rule 6 was added, BAAQMD Regulation 9, Rule 2 Hydrogen Sulfide was added, BAAQMD Regulation 9, Rule 7 was updated due to the rule amendment 5/4/2011, SIP Regulation 9, Rule 7 was added, and updates and clarifications were added to BAAQMD Permit Conditions 1253 and 13720,
11. Table IV-J was renumbered to IV-J.1 for S-75 Emergency Diesel Generator and Table IV-J.2 was added for S-91 Emergency Diesel Firewater Pump.
12. In Table IV-J.1, S-74 was removed, BAAQMD Regulation 6, Rule 1 was added and the former BAAQMD Regulation 6 was revised to SIP Regulation 6, updates, corrections and clarifications were added to BAAQMD Regulation 9, Rule 1 and Rule 8, the CARB ATCM, 40 CFR 63 Subparts A and ZZZZ were added, BAAQMD Condition 1253 was deleted, and BAAQMD Permit Condition 19308 was corrected.
13. In Table IV-K for S-76, S-77 and S-78 Internal Floating Roof Tanks, BAAQMD Regulation 8, Rule 5 was updated due to the rule amendment 10/18/2006, SIP Regulation 8, Rule 5 was added, BAAQMD Regulation 10 was added, missing citations were added to 40 CFR 60 Subpart A, updates, corrections and clarifications were added 40 CFR 60 Subpart Kb, 40 CFR 63 Subpart A was revised to include missing citations, and minor omissions were added to 40 CFR 63 Subpart R.

14. In Table IV-L for S-79 and S-80 Internal Floating Roof Tanks, BAAQMD Regulation 8, Rule 5 was updated due to the rule amendment 10/18/2006, SIP Regulation 8, Rule 5 was added, BAAQMD Regulation 10 was added, missing citations were added to 40 CFR 60 Subpart A, updates, corrections and clarifications were added to 40 CFR 60 Subpart Kb, 40 CFR 63 Subpart A was revised to include missing citations, and minor omissions were added to 40 CFR 63 Subpart R.
15. In Table IV-M for S-81, S-82 and S-83 Internal Floating Roof Tanks, BAAQMD Regulation 8, Rule 5 was updated due to the rule amendment 10/18/2006, SIP Regulation 8, Rule 5 was added, BAAQMD Regulation 10 was added, missing citations were added to 40 CFR 60 Subpart A, updates, corrections and clarifications were added 40 CFR 60 Subpart Kb, 40 CFR 63 Subpart A was revised to include missing citations, and minor omissions were added to 40 CFR 63 Subpart R.
16. In Table IV-N for S-84 through S-90 Internal Floating Roof Tanks, BAAQMD Regulation 8, Rule 5 was updated due to the rule amendment 10/18/2006, SIP Regulation 8, Rule 5 was added, BAAQMD Regulation 10 was added, missing citations were added to 40 CFR 60 Subpart A, updates, corrections and clarifications were added 40 CFR 60 Subpart Kb, 40 CFR 63 Subpart A was revised to include missing citations, and minor omissions were added to 40 CFR 63 Subpart R.
17. In Table IV-O for A-1 Thermal Oxidizer, BAAQMD Regulation 6, Rule 1 was updated due to the rule amendment 12/5/2007, SIP Rule 6 was added, BAAQMD Regulation 9, Rule 1 was updated and BAAQMD Regulation 9, Rule 2 was added.
18. In Table IV-P Facility Wide Requirements, BAAQMD Regulation 8, Rule 5 was updated due to the rule amendment 10/18/2006 and SIP Regulation 8, Rule 5 was added.
19. In Table IV-Q for Components, BAAQMD Regulation 8, Rule 18 was updated due to the rule amendment 9/15/2004, SIP Regulation 8, Rule 18 was updated, and BAAQMD Regulation 8, Rule 25 was deleted.

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 responsible official for Plains Products Terminals, LLC, submitted a signed Certification Statement form dated January 15, 2015. On this form, the responsible official certified that the following four statements are true:

Based on information and belief formed after reasonable inquiry, the source(s) identified in the Applicable Requirements and Compliance Summary form that is(are) in compliance will continue to comply with the applicable requirement(s);

Based on information and belief formed after reasonable inquiry, the source(s) identified in the Applicable Requirements and Compliance Summary form will comply with future-effective applicable requirement(s), on a timely basis;

VI. Permit Conditions

During the Title V permit development, the District has reviewed the existing permit conditions, deleted the obsolete conditions, and, as appropriate, revised the conditions for clarity and enforceability. Each permit condition is identified with a unique numerical identifier, up to five digits.

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

All changes to existing permit conditions 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.

The existing permit conditions 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.

The District has reviewed and, where appropriate, revised or added new annual and daily throughput limits on sources so as to help ensure compliance with District rules addressing preconstruction review. The applicability of preconstruction review depends on whether there is a "modified source" as defined in District Rule 2-1-234. Whether there is a modified source depends in part on whether there has been an "increase" in "emission level." 2-1-234 defines what will be considered an emissions level increase, and takes a somewhat different approach depending on whether a source has previously permitted by the District.

Sources that were modified or constructed since the District began issuing new source review permits will have permits that contain throughput limits, and these limits are reflected in the Title V permit. These limits have previously undergone District review, and are considered to be the legally binding "emission level" for purposes of 2-234.1 and 2-1-234.2. By contrast, for older

sources that have never been through preconstruction review (commonly referred to as "grandfathered" sources), an "increase" in "emission level" is addressed in 2-1-234.3. A grandfathered source is not subject to preconstruction review unless its emission level increases above the highest of either: 1) the design capacity of the source, 3) the capacity listed in a permit to operate, or 3) highest capacity demonstrated prior to March 2000. However, if the throughput capacity of a grandfathered source is limited by upstream or downstream equipment (i.e., is "bottlenecked"), then the relaxing of that limitation ("debottlenecking") is considered a modification.

The District has written throughput limits into the Title V permit for grandfathered sources. As discussed above, these limits are written for the purpose of determining whether an increase in emission levels has occurred. The purpose of these limits is to facilitate implementation of preconstruction review program. If these limits are exceeded, the facility would be expected to report the exceedence, and the District would treat the reported exceedence as presumptively establishing the occurrence of a modification. The facility would then be expected to apply for a preconstruction permit addressing the modification and the District would consider whether an enforcement action was appropriate.

It is important to note the presumptive nature of throughput limits for grandfathered sources that are created in the Title V permit. These limits are generally based upon the District's review of information provided by the facility regarding the design capacity or highest documented capacity of the grandfathered source. To verify whether these limits reflect the true design, documented, or "bottlenecked" capacity (pursuant to 2-1-234) of each source is beyond the resource abilities of the District in this Title V process. Moreover, the District cannot be completely confident that the facility has had time or resources necessary to provide the most accurate information available in this regard. Creating throughput limits in the Title V permit for grandfathered sources is not required by either Part 70 or the District's Major Facility Review rules. Despite the lack of such a requirement, and despite the resource and information challenges presented in the Title V process, the District believes that writing presumptive limits for grandfathered sources into the Title V permit will provide a measure of predictability regarding the future applicability of the preconstruction review program, and that this increased predictability is universally beneficial.

It follows from the presumptive nature of these throughput limits for grandfathered sources that exceedence of these limits is not per se a violation of the permit. *Failure to report an exceedence would be a permit violation.* In this sense, the throughput limits function as monitoring levels, and are imposed pursuant to the District's authority to required monitoring that provide a reasonable assurance of compliance. If an exceedence occurs, the facility would have an opportunity to demonstrate that the throughput limit in fact did not reflect the appropriate limit for purposes of 2-1-234.3. If the facility can demonstrate this, no enforcement action would follow, and the permit would be revised at the next opportunity. It also follows that compliance with these limits is not a "safe harbor" for the facility. If evidence clearly shows that a grandfathered source has undergone a "modification" as defined in 2-1-234.3, the District would consider that a preconstruction review-triggering event, notwithstanding compliance with the throughput limit in the Title V permit. In other words, the protection afforded the facility by complying with the throughput limit in the Title V permit is only as strong as the information on which it was based. There is no Title V "permit shield" associated with throughput limits for

grandfathered sources, as they are being proposed. A shield may be provided if the District determines with certainty that a particular limit is appropriate for purposes of 2-1-234.3.

Conditions that are obsolete or that have no regulatory basis have been deleted from the permit.

Conditions have also been deleted due to the following:

- Redundancy in recordkeeping requirements.
- Redundancy in other conditions, regulations and rules.
- The condition has been superseded by other regulations and rules.
- The equipment has been taken out of service or is exempt.
- The event has already occurred (i.e. initial or start-up source tests).

The regulatory basis is listed following each condition. The regulatory basis may be a rule or regulation. The District is also using the following terms for regulatory basis:

- BACT: This term is used for a condition imposed by the Air Pollution Control Officer (APCO) to ensure compliance with the Best Available Control Technology in Regulation 2-2-301.
- Cumulative Increase: This term is used for a condition imposed by the APCO that limits a source's operation to the operation described in the permit application pursuant to BAAQMD Regulation 2-1-403.
- Offsets: This term is used for a condition imposed by the APCO to ensure compliance with the use of offsets for the permitting of a source or with the banking of emissions from a source pursuant to Regulation 2, Rules 2 and 4.
- PSD: This term is used for a condition imposed by the APCO to ensure compliance with a Prevention of Significant Deterioration permit issued pursuant to Regulation 2, Rule 2.

<u>Changes to permit:</u>

1. In "Bubble" Condition 1253, the source list was updated, and a date omission was added to part I.B. Even though this condition is complicated and convoluted, no other review of this permit condition was made.
2. Permit Condition 13720, S-73 Direct Fired Heater, was updated to show the current language.
3. Permit Condition 19308, S-75 Emergency Diesel Generator, was updated to show the current language and the removal of S-74.
4. Permit Condition 22850 was added for S-91 Emergency Diesel Firewater Pump.
5. Permit Condition 24966 was added for S-30 Oily Water Separator.
6. Permit Condition 25463 was added for A-3 Vapor Bladder Tank.

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.

The District has reviewed all monitoring and has determined the existing monitoring is adequate with the following exceptions.

The tables below contain only the limits for which there is no monitoring or inadequate monitoring in the applicable requirements. The District has examined the monitoring for other limits and has determined that monitoring is adequate to provide a reasonable assurance of compliance. Calculations for potential to emit will be provided in the discussion when no monitoring is proposed due to the size of a source.

Monitoring decisions are typically the result of a balancing of several different factors including: 1) the likelihood of a violation given the characteristics of normal operation, 2) degree of variability in the operation and in the control device, if there is one, 3) the potential severity of impact of an undetected violation, 4) the technical feasibility and probative value of indicator monitoring, 5) the economic feasibility of indicator monitoring, and 6) whether there is some other factor, such as a different regulatory restriction applicable to the same operation, that also provides some assurance of compliance with the limit in question.

These factors are the same as those historically applied by the District in developing monitoring for applicable requirements**.** It follows that, although Title V calls for a re-examination of all monitoring**,** there is a presumption that these factors have been appropriately balanced and incorporated in the District's prior rule development and/or permit issuance. It is possible that, where a rule or permit requirement has historically had no monitoring associated with it, no monitoring may still be appropriate in the Title V permit if, for instance, there is little likelihood of a violation**.** Compliance behavior and associated costs of compliance are determined in part by the frequency and nature of associated monitoring requirements. As a result, the District will generally revise the nature or frequency of monitoring requirements only when it can support a conclusion that existing monitoring is inadequate**.**

SO_2 Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S-73, Direct Fired Heater	BAAQMD 9-1-301	Ground level concentrations of SO2 shall not exceed: 0.5 ppm for 3 consecutive minutes AND 0.25 ppm averaged over 60 consecutive minutes AND 0.05 ppm averaged over 24 hours	None
S-73, Direct Fired Heater	BAAQMD 9-1-302	300 ppm (dry)	None

SO_2 Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S-74, Emergency Diesel Generator S-91, Emergency Diesel Firewater Pump	BAAQMD 9-1-301	Ground level concentrations of SO2 shall not exceed: 0.5 ppm for 3 consecutive minutes AND 0.25 ppm averaged over 60 consecutive minutes AND 0.05 ppm averaged over 24 hours	None
S-74, Emergency Diesel Generator S-91, Emergency Diesel Firewater Pump	BAAQMD 9-1-302	300 ppm (dry)	None
A-1, Thermal Oxidizer	BAAQMD 9-1-301	Ground level concentrations of SO2 shall not exceed: 0.5 ppm for 3 consecutive minutes AND 0.25 ppm averaged over 60 consecutive minutes AND 0.05 ppm averaged over 24 hours	None
A-1, Thermal Oxidizer	BAAQMD 9-1-302	300 ppm (dry)	None

SO2 Discussion:

BAAQMD Regulation 9-1-301

Area monitoring to demonstrate compliance with the ground level SO_2 concentration requirements of Regulation 9-1-301 is at the discretion of the APCO (per BAAQMD Regulation 9-1-501). This facility does not have equipment that emits large amounts of SO_2 and therefore is not required to have ground level monitoring by the APCO.

All facility combustion sources are subject to the SO_2 emission limitations in District Regulation 9, Rule 1 (ground-level concentration and emission point concentration). In EPA's June 24, 1999 agreement with CAPCOA and ARB, "Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", EPA has agreed that natural-gas-fired combustion sources do not need additional monitoring to verify compliance with Regulation 9, Rule 1, since violations of the regulation are unlikely. Therefore, no monitoring is necessary for this requirement.

PM Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S-73, Direct Fired Heater	BAAQMD Regulation 6-1-301	Ringelmann 1.0	None
S-73, Direct Fired Heater	BAAQMD Regulation 6-1-310	0.15 gr/dscf	None
S-73, Direct Fired Heater	BAAQMD Regulation 6-1-310.3	0.15 gr/dscf at 6% O2	None
S-73, Direct Fired Heater	BAAQMD Regulation 6-1-311	$4.10P^{0.67}$ lb/hr, where P is process weight, lb/hr	None
S-74, Emergency Diesel Generator S-91, Emergency Diesel Firewater Pump	BAAQMD Regulation 6-1-301	Ringelmann 1.0	None
S-74, Emergency Diesel Generator S-91, Emergency Diesel Firewater Pump	BAAQMD Regulation 6-1-310	0.15 gr/dscf	None
S-74, Emergency Diesel Generator S-91, Emergency Diesel Firewater Pump	BAAQMD Regulation 6-1-310.3	0.15 gr/dscf at 6% O2	None
S-74, Emergency Diesel Generator S-91, Emergency Diesel Firewater Pump	BAAQMD Regulation 6-1-311	$4.10P^{0.67}$ lb/hr, where P is process weight, lb/hr	None

PM Discussion:

BAAQMD Regulation 6, Rule 1 "Particulate Matter General Requirements"

Visible Emissions

BAAQMD Regulation 6-1-301 limits visible emissions to no darker than 1.0 on the Ringelmann Chart (except for periods or aggregate periods less than 3 minutes in any hour). Visible emissions are normally not associated with combustion of gaseous fuels, such as natural gas. Source S-73 burns natural gas exclusively (Permit Condition 13720, Part 4), therefore, per the EPA's June 24, 1999 agreement with CAPCOA and ARB titled "Summary of Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", no monitoring is required to assure compliance with this limit for these sources.

In accordance with the June 24, 1999 "Periodic Monitoring Recommendations for Generally Applicable Requirements" prepared by the CAPCOA/CARB/EPA Region IX periodic monitoring workgroup, the facility need not conduct opacity monitoring for diesel standby and emergency reciprocating engines.

Particulate Weight Limitation

BAAQMD Regulation 6-1-310 limits filterable particulate (FP) emissions from any source to 0.15 grains per dry standard cubic foot (gr/dscf) of exhaust volume. Section 310.3 limits filterable particulate emissions from "heat transfer operations" to 0.15 gr/dscf @ 6% O_2. These are the "grain loading" standards.

Exceedances of the grain loading standards are normally not associated with combustion of gaseous fuels, such as natural gas. Source S-73 burns natural gas exclusively (Permit Condition 13720, Part 4), therefore, per the EPA's July 2001 agreement with CAPCOA and ARB entitled "CAPCOA/CARB/EPA Region IX Recommended Periodic Monitoring for Generally Applicable Grain Loading Standards in the SIP: Combustion Sources: Summary of Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", no monitoring is required to assure compliance with this limit for these sources.

In accordance with the July 2001 "CAPCOA/CARB/EPA Region IX Recommended Periodic Monitoring for Generally Applicable Grain Loading Standards in the SIP: Combustion Sources," the facility need not monitor engine exhaust of non-utility distillate-oil-fueled emergency piston-type IC engines, but must maintain records of all engine usage.

Allowable Rate of Emissions Based on Process Weight Rate

BAAQMD Regulation 6-1-311 is the General Operation limit that is in addition to the other particulate matter limits. This particulate emission limit is based on the formula $E = 4.10\ P^{0.67}$ where E is the particulate emission limit in lbs/hr and P is process weight rate in lb/hr. Since the sources subject to this limit fire either natural gas or ultra low sulfur Diesel, no monitoring is proposed because emissions are expected to be negligible.

Changes to permit:

1. A note has been added at the beginning of the section to clarify that this section is a summary of the limits and monitoring, and that in the case of a conflict between Sections I-VI and Section VII, the preceding sections take precedence.
2. Headings have been added to the tank tables indicating the general applicability criteria, consistent with the tables in Section IV.
3. TVP limits associated with Regulation 8, Rule 5 have been added to all Tank Tables.

4. In Table VII-A, for Fixed Roof Tanks S-1 through S-10, BAAQMD Regulation 8, Rule 5 was updated due to the rule amendment 10/18/2006, SIP Regulation 8, Rule 5 was added, 40 CFR 60 Subpart Kb limits were added as required by 40 CFR 63 Subpart R, and the POC limit for BAAQMD Condition 1253, Part IIID, was clarified indicating the Organic Emission Factor of 1.44 lb/1000 barrels is a limit for bubble compliance determination.
5. Moved S-18 and S-19 from Table VII-C to Table VII-B because the capacity of each tank is 12,000 gallons, consistent with Section IV.
6. In Table VII-B, for Fixed Roof Tanks S-11, S-18 and S-19, BAAQMD Regulation 8, Rule 5 was updated due to the rule amendment 10/18/2006, SIP Regulation 8, Rule 5 was added, and added the POC limit of BAAQMD Condition 1253, Part IIID to be consistent with the other tank tables.
7. In Table IV-C, for Fixed Roof Tank S-12, BAAQMD Regulation 8, Rule 5 was updated due to the rule amendment 10/18/2006, SIP Regulation 8, Rule 5 was added, 40 CFR 60 Subpart Kb limits were added as required by 40 CFR 63 Subpart R, the POC limit for BAAQMD Condition 1253, Part IIID, was clarified indicating the Organic Emission Factor of 1.44 lb/1000 barrels is a limit for bubble compliance determination, and the NOx, CO, SO2 and FP bubble limits of Condition 1253 were removed, consistent with Tables VII-A and VII-B.
8. In Table VII-D, for External Floating Roof Tanks S-13 through S-16, BAAQMD Regulation 8, Rule 5 was updated due to the rule amendment 10/18/2006, SIP Regulation 8, Rule 5 was added, 40 CFR 60 Subpart K was deleted and Subpart Kb citations were added.
9. In Table VII-F for S-21 Marine Vessel Loading Wharf, updates, corrections and clarifications were made to several limits.
10. In Table VII-G for S-30 Oily Water Separator, S-23 and S-24 were removed and S-30 was added, BAAQMD Regulation 8, Rule 8 was added, and BAAQMD Permit Condition 24966 was added.
11. In Table VII-H, for Fixed Roof Tanks S-27 and S-28, BAAQMD Regulation 8, Rule 5 was updated due to the rule amendment 10/18/2006, SIP Regulation 8, Rule 5 was added, 40 CFR 60 Subpart Kb limits were added as required by 40 CFR 63 Subpart R, 40 CFR 63 Subpart A was revised to include missing citations, the POC limit for BAAQMD Condition 1253, Part IIID, was clarified indicating the Organic Emission Factor of 1.44 lb/1000 barrels is a limit for bubble compliance determination, and the NOx, CO, SO2 and FP bubble limits of Condition 1253 were removed, consistent with Tables VII-A and VII-B.
12. In Table VII-I for S-73 Direct Fired Heater, BAAQMD Regulation 6, Rule 1 was updated due to the rule amendment 12/5/2007, SIP Rule 6 was added, BAAQMD Regulation 9, Rule 7 was updated due to the rule amendment 5/4/2011, SIP Regulation 9, Rule 7 was added, and updates and clarifications were added to BAAQMD Permit Conditions 1253 and 13720.
13. Table VII-J was renumbered to VII-J.1 for S-75 Emergency Diesel Generator and Table VII-J.2 was added for S-91 Emergency Diesel Firewater Pump, consistent with Section IV.
14. In Table VII-J.1, S-74 was removed, BAAQMD Regulation 6, Rule 1 was added and the former BAAQMD Regulation 6 was revised to SIP Regulation 6, the SO2 limit for BAAQMD 9-1-302 was added, clarifications were added to BAAQMD Regulation 9-1-301, Hours of Operation limits for Regulation 9, Rule 8, the ATCM and 40 CFR 63 Subpart ZZZZ were added, and Condition 19308 Part2 was updated.

15. In Table VII-K for S-76, S-77 and S-78 Internal Floating Roof Tanks, BAAQMD Regulation 8, Rule 5 was updated due to the rule amendment 10/18/2006, SIP Regulation 8, Rule 5 was added, and updates, corrections and clarifications were added the limits of 40 CFR 60 Subpart Kb, 40 CFR 63 Subpart R and Condition 20060.
16. In Table VII-L for S-79 and S-80 Internal Floating Roof Tanks, BAAQMD Regulation 8, Rule 5 was updated due to the rule amendment 10/18/2006, SIP Regulation 8, Rule 5 was added, and updates, corrections and clarifications were added the limits of 40 CFR 60 Subpart Kb, 40 CFR 63 Subpart R and Condition 21829.
17. In Table VII-M for S-81, S-82 and S-83 Internal Floating Roof Tanks, BAAQMD Regulation 8, Rule 5 was updated due to the rule amendment 10/18/2006, SIP Regulation 8, Rule 5 was added, and updates, corrections and clarifications were added the limits of 40 CFR 60 Subpart Kb, 40 CFR 63 Subpart R and Condition 22788.
18. In Table VII-N for S-84 through S-90 Internal Floating Roof Tanks, BAAQMD Regulation 8, Rule 5 was updated due to the rule amendment 10/18/2006, SIP Regulation 8, Rule 5 was added, and updates, corrections and clarifications were added the limits of 40 CFR 60 Subpart Kb, 40 CFR 63 Subpart R and Condition 23338.
19. In Table VII-O for A-1 Thermal Oxidizer, BAAQMD Regulation 6, Rule 1 was updated due to the rule amendment 12/5/2007, SIP Rule 6 was added, BAAQMD Regulation 9-1-301 was updated and BAAQMD Regulation 9-2-301 was added.
20. In Table VII-P Facility Wide Requirements, BAAQMD Regulation 8, Rule 5 was updated due to the rule amendment 10/18/2006, SIP Regulation 8, Rule 5 was added, and Regulation 9-1-301 was updated.
21. In Table VII-Q for Components, BAAQMD Regulation 8, Rule 18 was updated due to the rule amendment 9/15/2004, SIP Regulation 8, Rule 18 was updated, and BAAQMD Regulation 8, Rule 25 was deleted.

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" as defined by Regulation 2-6-202.

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

Changes to permit:

1. Deleted test methods associated with BAAQMD Regulation 8, Rule 33, Gasoline Bulk Terminals and Gasoline Cargo Tanks, 40 CFR 60 Subpart XX, 40 CFR 63 Subpart R, and 40 CFR 63 Subpart Y that are not in the permit.

IX. Permit Shield:

The District rules allow two types of permit shields. The permit shield types are defined as follows: (1) A provision in a major facility review permit explaining that specific federally enforceable regulations and standards do not apply to a source or group of sources, or (2) A provision in a major facility review permit explaining that specific federally enforceable applicable requirements for monitoring, recordkeeping and/or reporting are subsumed because other applicable requirements for monitoring, recordkeeping, and reporting in the permit will assure compliance with all emission limits.

The second type of permit shield is allowed by EPA's "White Paper 2 for Improved Implementation of the Part 70 Operating Permits Program." The District uses the second type of permit shield for all streamlining of monitoring, recordkeeping, and reporting requirements in Title V permits. The District's program does not allow other types of streamlining in Title V permits.

This facility has no permit shields.

Changes to permit:

The section and standard language in the Section IX, Permit Shield, was added.

X. Revision History

Changes to permit:

This section will be updates once this permit is issued in its final form.

XI. Glossary

Changes to permit:

The glossary was updated.

D. Alternate Operating Scenarios:

No alternate operating scenario has been requested for this facility.

E. Compliance Status:

The responsible official for Plains Products Terminals, LLC, submitted a signed Certification Statement form dated January 15, 2015. On this form, the responsible official certified that the following four statements are true:

Based on information and belief formed after reasonable inquiry, the source(s) identified in the Applicable Requirements and Compliance Summary form that is(are) in compliance will continue to comply with the applicable requirement(s);

Based on information and belief formed after reasonable inquiry, the source(s) identified in the Applicable Requirements and Compliance Summary form will comply with future-effective applicable requirement(s), on a timely basis;

Based on information and belief formed after reasonable inquiry, information on application forms, all accompanying reports, and other required certifications is true, accurate, and complete;

All fees required by Regulation 3, including Schedule P have been paid.

F. Differences between the Application and the Proposed Permit:

The Title V permit application was originally submitted on November 22, 2011. This version is the basis for constructing the proposed Title V permit. Revisions were made to the Renewal Application 23957 as a result of changes at the facility that were made pursuant to the Permit Applications detailed in Part B of this Statement of Basis.

Throughput limits (identified by a basis of Regulation 2-1-234.3) have been added to sources with no existing throughput or emission limits, as explained in Section C.II of this Statement of Basis.

Appendices

APPENDIX A – ENGINEERING EVALUATIONS

Application 13774, New Storage Tanks S-81, S-82 and S-83

EVALUATION REPORT
Pacific Atlantic Terminals, LLC
Application #13774 - Plant #17559

2801 Waterfront Road
Martinez, CA 94553

I. BACKGROUND

Pacific Atlantic Terminals, LLC has applied for an Authority to Construct/Permit to Operate for the following equipment:

S-81 Internal Floating Roof Tank # 15001, 150 ft Dia., 150,000 barrels capacity.
S-82 Internal Floating Roof Tank # 15002, 150 ft Dia., 150,000 barrels capacity.
S-83 Internal Floating Roof Tank # 15003, 150 ft Dia., 150,000 barrels capacity.

These tanks will store gasoline and other petroleum products, which will be transferred to and from existing pipelines. These tanks will also be connected to the truck loading rack; however, it will not be used at this time. In fact, the truck loading rack operation is not being used at this time at all because there is no demand for it. In the future, if gasoline from sources S-81, 82 and S-83 are routed to the truck loading rack, Pacific Atlantic Terminals will need to review its truck loading rack operation and apply for any increases from the upstream sources.

Pacific Atlantic Terminals has not applied to modify its Title V permit due to the addition of these two new tanks. The applicant has been notified to submit the Title V modification as soon as possible.

II. EMISSION INCREASES

The tanks will have a fixed roof on top, and an internal floating roof design. The floating roof deck will be cable supported with a single, center column and there are no adjustable leg fittings for this deck to minimize the emissions during tank degassing. The emissions from these tanks are calculated by EPA Tank 4.0 program using gasoline with Reid Vapor Pressure of 15 psi and Sacramento meteorological data. (See attached calculations)

Tank Emissions (EPA Tank 4.0):
Throughput = 6,300,000 gal X 24 times/yr = 151,200,000 gal/yr for each tank
3 tanks total = 151,200,000 gal/yr X 3 = 453,600,000 gal/yr for 3 tanks.

	Annual (lb/yr)	Daily (lb/day)	
Rim loss	1,164.33	3.19	(365 day/yr)
Working loss	201.52	8.40	(24 time/yr)
Deck fitting loss	3,152.35	8.64	(365 day/yr)
Maximum emissions	4,518.20	20.23	

Fugitive Component Emissions:
Implementation Guidelines for estimating mass Emissions of Fugitive Hydrocarbon Leaks at Facilities – February 1999". The emissions factors are contained in Table IV-1b, " 1995 EPA Protocol Marketing Terminal Average Emission Factors".

Fugitive sources	Number	Emission Factor kg/hr/source	Annual Emissions lbs/yr
Valves – light liquid	16	4.3 X 10-5	13.29
Flanges–liq.	84	8.0 X 10-6	12.98
Pump seals - liquid	1	5.4 X 10-4	10.43

Total 36.70
Total Emissions = (4,518.20 X 3) + 36.70 = 13,591.30 lb/yr or 6.796 tpy

III. TOXIC SCREENING ANALYSIS

Sources S-81, S-81, and S-83 required the health risk screening analysis because benzene emissions from three sources exceeded the chronic toxic trigger level assuming the maximum vapor benzene concentration in the gasoline is at 1.4 % by weight (see attached benzene calculation). The tank emissions did not exceed the benzene acute trigger level.

The toxic risk was performed based on the cumulative impacts from all related projects permitted within the last two years. The emissions from tanks S-79 and S-80 were included because the last one was given a Permit to Operate in November 2005 under application # 10493.

Toxic Pollutant	Benzene Emission Rate	Trigger Level
S-79	23.1 lb/yr	6.4 lb/yr
S-80	23.1 lb/yr	6.4 lb/yr
S-81	63.4 lb/yr	6.4 lb/yr
S-82	63.4 lb/yr	6.4 lb/yr
S-83	63.4 lb/yr	6.4 lb/yr

The cancer risk to the maximally exposed residential receptor is 0.0045 in a million and to the worker is 0.03 in a million. Thus, in accordance with the risk management policy the screen passes since the sources comply with TBACT standards. (See attached toxic report dated 12/14/06)

IV. BEST AVAILABLE CONTROL TECHNOLOGY

BACT is triggered for this application because VOC emissions from each source S-81, S-82, or S-83 are more than 10 lb/day per Regulation 2-2-301. Sources S-81, S-82 and S-83 are equipped with BACT(2) level with the installation of the internal floating roofs. These tanks are equipped with BAAQMD approved roof with metallic shoe primary seal and zero gap secondary seal, all meeting design criteria of Reg. 8, Rule 5. The metallic shoe primary seal is considered as equivalent to the liquid mounted primary seal by the District since the metallic shoe lasts longer in the long run and the emission increase is not much more. 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.

V. OFFSETS

Offsets are required for source S-81, S-82 and S-83 because the potential to emit from this facility is greater than 35 ton/yr per Regulation 2-2-302. Pacific Atlantic Terminals will provide offsets at a ratio of 1.15:1 for this application.

Offsets: 6.796 tpy X 1.15 = 7.815 tpy for this application
Pacific Atlantic Terminals had submitted the company's Banking Certificate of Deposit # 958 to provide offsets for this project.

Banking Certificate of Deposit # 958 currently has 8.00 tpy POC. Thus, the Banking Certificate will be reissued to Pacific Atlantic Terminals in the amount of 0.185 tpy POC.

POC = 8.00 tpy – 7.815 tpy = 0.185 tpy

VI. PLANT CUMULATIVE INCREASE SINCE 4/5/1991

	Current	New	New Total	
	Ton/yr	Ton/yr	Lbs/yr	Tons/yr

POC =	0.00	6.796	0.00	0.00
NO_x =	0.00	0.00	0.00	0.00
SO_2 =	0.00	0.00	0.00	0.00
CO =	0.00	0.00	0.00	0.00
NPOC =	0.00	0.00	0.00	0.00
TSP =	0.00	0.00	0.00	0.00
PM_{10} =	0.00	0.00	0.00	0.00

VII. STATEMENT OF COMPLIANCE

This application is subject to Regulation 8, Rule 5-305.2 and 305.3, 320, 321, 322, and 328, which requires that storage tanks larger than 39 thousand gallons be equipped with either liquid mounted or metallic shoe primary seals and a secondary subject to Regulation 8-5-321 and 322, respectively. Section 8-5-305.3 requires that tanks must be equipped with at least 3 viewing ports in the fixed roof of the tank. Section 8-5-328 requires that tank-degassing operations be controlled. Sources S-81, S-82 and S-83 are expected to comply with the standards of Regulation 8, Rule 5 since the sources will have:

(a) Internal floating roof with either liquid or mechanical primary seal, and rim mounted secondary seal.
(b) Minimum of 3 viewing ports.
(c) Tank degassing with at least 90% control efficiency.

Sources S-81, S-82 and S-83 are subject and expected to comply with Regulation 10 - Standard of Performance for New Stationary, 40 CFR 60, Subpart Kb - Volatile Organic Liquid Storage Vessels. The internal floating roof will be equipped with either a liquid or mechanical shoe primary and rim mounted secondary seals.

This application is subject to NESHAP 40 CFR 63, Subpart R - National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals). The sources will comply with Section 63.432, which requires compliance with NSPS subpart Kb (Section 60.112b).

This 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 emission factors in accordance with Permit Handbook Chapter 4.1.

This project is over 1,000 ft from the nearest public school and is therefore not subject to the public notification requirements of Regulation 2-1-412.

PSD is not triggered.

VIII. CONDITIONS

Condition for Sources S-80, S-81 and S-83, internal floating roof tanks, Pacific Atlantic Terminal, LLC, Application # 13774, Plant # 17559.

1. The owner/operator of S-81, S-82 and S-83 shall not exceed 453,600,000 gallons of non-exempt organics (defined in Regulation 2-1-123) throughput during any consecutive 12 month period. [Basis: Cumulative Increase]

2. The Owner/Operator shall store only gasoline, diesel and jet fuel in S-81, S-82 and S-83. [Basis: Cumulative Increase]

   a. A liquid other than those specified above may be stored in S-81, S-82 and S-83, provided that both of the following criteria are met:
      i. POC emissions, based on the maximum throughput Part 1, do not exceed 13,591 pounds per year
      ii. Toxics emissions in pound per year, based on the maximum throughput in Part 1, do not exceed any risk screening trigger level.

3. The Owner/Operator shall equip Sources S-81, S-82 and S-83 with a metallic shoe primary seal and a zero-gap secondary seal. There shall be no ungasketed roof fittings. Except for roof legs and guide poles/wells, each roof fitting shall be of the design, which yields the minimum roof fitting losses (per EPA Compilation of Air Pollution Emission Factors, AP-42, Supplement E, Section 12.3.2, Table 12.3-11). The following list indicates the type of control required for a variety of typical roof fittings. Control techniques for roof fittings not included in this list shall be subject to District approval, prior to installing the roof on the tank.

Fitting Type	*Control Technique*
Access hatch	Bolted cover, gasketed
Guide pole / Well	Unslotted guide pole, gasketed sliding cover, or Slotted with controls per API 2517 Addendum (See Note 1)
Gauge float well	Bolted cover, gasketed
Gauge hatch / Sample well	Weighted mechanical actuation, gasketed
Vacuum breaker	Weighted mechanical actuation, gasketed
Roof drain	Roof drain does not drain water into product
Roof leg	Fixed or adjustable with vapor seal boot or gasket between roof leg and leg sleeve
Rim vent	Weighted mechanical actuation, gasketed

Note 1: Slotted Guide Pole Control Configuration, per Addendum to API Publication 2517, May 1994, shall include the following components:

a. Sliding cover.
b. Well gasket.
c. Pole sleeve with pole wiper approximately 6 inches above sliding cover, or District approved equivalent.
d. Float with float wiper approximately 1 inch above the sliding cover, or alternately a float with multiple wipers.
(Basis: BACT)

4. The maximum vapor benzene concentration in all hydrocarbon liquids stored in Storage Tanks S-79, and S-80 shall not exceed 1.4 % by weight. The owner/operator of sources S-81, S-82 and S-83 shall analyze gasoline stored in each of these tanks for benzene concentration at least once every 6 months. Each tank shall be sampled within 30 days of start-up. If the owner/operator can demonstrate that several tanks contain hydrocarbon from a single source (shipment), then a single benzene analysis may be performed for that group of tanks. These records shall be kept on file for at least 5 years after the date of entry and shall be made available to District personnel upon request. All tests shall be performed in accordance with District approved laboratory procedures. . [Basis: Toxics]

5. The Owner/Operator shall inspect and maintain all valves, flanges and pump associated with this project according to the criteria of District Regulation 8-18 and any future revisions to this rule. [Basis: Reg. 8-18]

6. The Owner/Operator shall not transfer any gasoline from S-81, S-82 and S-83 to the tank truck loading rack (S-20). [Basis: Cumulative Increase]

7. In order to demonstrate compliance with the above Parts, the Owner/Operator of tanks S-81, S-82 and S-83 shall maintain the following records in a District approved log. These records shall be kept on site and made available for District inspection for a period of at least five years from the date that the record was made. [Basis: Record keeping]
   a. The type and VOC content of all materials stored and the dates that the materials were stored.
   b. The total daily throughput of each material stored, summarized on a monthly and annual basis.

IX. RECOMMENDATION

It is recommended that conditional Authority to Constructs be granted to Pacific Atlantic Terminals, LLC for the following equipment:

S-81 Internal Floating Roof Tank # 15001, 150 ft Dia., 150,000 barrels capacity.
S-82 Internal Floating Roof Tank # 15002, 150 ft Dia., 150,000 barrels capacity.
S-83 Internal Floating Roof Tank # 15003, 150 ft Dia., 150,000 barrels capacity.

_____
Thu H. Bui
Air Quality Engineer II
Permit Services Division

Date: _____

Application 14652, A-2 Trailer Mounted Combustor

EVALUATION REPORT
Pacific Atlantic Terminals, LLC
Application #14652 - Plant #17559

2801 Waterfront Road
Martinez, CA 94553

I. BACKGROUND

Pacific Atlantic Terminals, LLC has applied for a change of condition to the Permit to Operate for the following equipment:

A-2 Trailer Mounted Combustor, 42.3 million BTU/hr, John Zink, PECS Unit, temporarily abating S-1 through S-12, S-18, S-19, S-27, and S-28 Fixed Roof Tanks.

This temporary Trailer Mounted Combustor (A-2) was used to abate POC emissions from sources S-1 through S-12, S-18, S-19, S-27, and S-28 fixed roof tanks while maintenance was performed on the permanent A-1 Thermal Oxidizer for 21 days. This was necessary because the existing oxidizer's stack was damaged and needed immediate repair. Pacific Atlantic Terminals (PAT) also likes the flexibility of using an equivalent abatement device to abate the tanks (S-1 through S-12, S-18, S-19, S-27 and S-28) such as A-2 for temporarily replacement while the permanent thermal oxidizer is in service in the future.

The proposed A-2 (42.3 MMBtu/hr) used natural gas and had a much smaller capacity than the existing A-1 (235 MMBtu/hr) thermal oxidizer. Therefore, the secondary combustion emissions such as NOx, CO, SO2, and PM10 were expected to decrease as a result of this temporary replacement. The John Zink portable thermal oxidizer was permitted by the District under original Application # 2374, and was modified by Application # 13650 along with the operating Condition # 17984.

The Trailer Mounted Combustor (A-2) was brought on site on May 17, 2006 to abate the POC emission from the tanks, while the marine vessel wharf was not in use. Best Environment performed the source tests with A-2 in place on May 23, 2006. The test results were submitted to the District's Source Test Section in July 2006. The temporary John Zink Thermal Oxidizer (A-1) complied with its portable condition # 17984, which are the RACT levels, 50 ppmvd of NOx @ 15% oxygen and 350 ppmvd of CO @ 15% oxygen. The average NOx concentration from the source test was 35 ppmvd at 15% oxygen and the CO concentration was 18 ppmvd at 15% oxgen. In addition, the source test results also complied with Pacific Atlantic Terminals' condition # 1252, which required a minimum 95% POC control efficiency. The destruction efficiency from the test result was 99.998% for A-2. See attached memorandum dated July 31, 2006 from the Source Test Section.

The District has revised Condition # 1253, Part II D, Section i to add the allowance of temporary use of the portable John Zink unit or equivalent equipment. Condition # 1253, Part II D, Section i was changed from 1.5 psig to 1.5 inches of water column to reflect the actual reading as request by inspector Scott Applin on October 5, 2006. In addition, Condition # 1253, Part II D, Section iii was added to specify the minimum operating temperature of 1400 ^{o}F for A-1, since the operating temperature was not included any where in the existing condition for abating the fixed roof tanks.

Pacific Atlantic Terminals submitted a minor modification for their Title V permit under application # 14653 for this condition change.

II. EMISSION INCREASES

The proposed condition change will not increase emissions of criteria pollutants or toxic air contaminants above the currently permitted limits at PAT.

IV. BEST AVAILABLE CONTROL TECHNOLOGY

BACT does not apply to the abatement's change of condition in this application because it is not considered as a new or modified source.

V. OFFSETS

N/A.

VI. PLANT CUMULATIVE INCREASE SINCE 4/5/1991

N/A.

VII. STATEMENT OF COMPLIANCE

Sources S-1 through S-12, S-18, S-19, S-27, S-28 Fixed Roof Storage Tanks, and S-21 marine Vessel Wharf of this application is subject and expected to comply with Regulation 8, Rule 5-306, which requires that loading of gasoline into these tanks must have a abatement device with at least 95% control efficiency.

- Sources S-1 through S-10, S-12, S-18 and S-19 Fixed Roof storage Tanks are subject to and expected to continue to comply with the following Regulation 10: New Source Performance Standards (NSPS) and NESHAPS:

- 40 CFR, Part 60, Subpart K - Standards of Performance for Volatile Organic Liquid Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978.
- NESHAPS 40 CFR, Part 63, Subpart R - National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)
- 40 CFR 64 - Compliance Assurance Monitoring

- Sources S-27 and S-28 Fixed Roof storage Tanks are subject to and expected to continue to comply with the following Regulation 10: New Source Performance Standards (NSPS) and NESHAPS:

- NSPS Part 60 Subpart Ka - Standards of Performance for Storage Vessels For Petroleum Liquid for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984
- NESHAPS 40 CFR, Part 63, Subpart R - National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)
- 40 CFR 64 - Compliance Assurance Monitoring

This 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 emission factors in accordance with Permit Handbook Chapter 4.1 and 3.1.

This project is over 1,000 ft from the nearest public school and is therefore not subject to the public notification requirements of Regulation 2-1-412.

NSR, BACT, Offsets, PSD, are not applicable.

VIII. CONDITIONS

Condition # 1253

For S-1 THROUGH S-16, S-18, S-19, STORAGE TANKS; S-21, MARINE VESSEL WHARF; S-23, S-24, OILY WATER SEPARATORS; S-27, S-28, FIXED ROOF TANKS; S-73, DIRECT FIRED HEATER; S-76, S-77, S-78, S-79 AND S-80 INTERNAL FLOATING ROOF TANKS; AND A-1 THERMAL OXIDIZER; (EXCLUDE S-74, S-75 DIESEL IC EMERGENCY GENERATORS):

I. EMISSION LIMITATIONS

A) Deleted, obsolete.

B) The Owner/Operator shall ensure that total facility emissions from all sources, including organic loading emissions, shall not exceed the following levels during any calendar year. (Revised July 1, 1991) [Basis: Cumulative Increase]

Organic Compounds:	71.426 tons/year (Revised 4/21/2003)
Carbon Monoxide:	52.2 tons/year
Oxides of Nitrogen:	129.5 tons/year
Sulfur Dioxide:	83.5 tons/year
Particulate Matter:	25.8 tons/year

II. GENERAL TERMINAL AND WHARF CONDITIONS

A) The Owner/Operator shall not allow a tanker that is calling exclusively at the terminal shall, while in California Coastal waters, to engage in any maintenance, repair, inspection, washing, purging and gas freeing, or lightering of cargo tanks or any other operation (excepting loading and offloading, ballasting, and bunkering) that results in the escape of hydrocarbon vapor to the atmosphere, except that this does not prohibit emergency repairs. All of these activities shall be recorded on a District approved log and be made available to the District representative upon request. Any failure by the Owner/Operator to report the activities listed above will subject them to appropriate enforcement action. Any emissions resulting from these unauthorized activities will be charged to the Owner/Operator emissions cap. [Basis: Cumulative Increase]

B) The Owner/Operator shall inspect pumps, compressors, pump manifolds and pressure relief valves for visible vapor or liquid leaks on a daily basis. [Basis: Regulation 8, Rule –18, Section 403]

C) The Owner/Operator shall follow the leak check procedures, testing methods, calibration procedures, definition of a leak, repair techniques, record keeping and report requirements in accordance with the Federal NSPS for equipment leaks of VOC from onshore natural gas processing plants. [Basis: Cumulative Increase]

D) The Owner/Operator of the following sources shall use A-1, Thermal Oxidizer, as an abatement device during all of the following events:

i. When non-exempt organic compounds (as defined in District Regulation 2, Rule 1, Section 123) are being stored in or transferred to storage tanks S-1 through S-12, S-18, S-19, S-27 and S-28, and when A-1 is automatically turned on every time the pressure in the tank farm vapor line reached 1.5 ~~psig~~inches of water column as determined by monitoring and recording of the tank farm vapor pressure return line on a continuous basis. (A-1 may temporarily be replaced by the John Zink Trailer Mounted Combustor (PECS Unit) or equivalent equipment during periods of breakdown or maintenance). [Basis: Cumulative Increase, BACT]

ii. When regulated organic liquids (as defined in District Regulation 8-44-222) are loaded at marine wharf S-21, and when A-1 is manually turned on. [Basis: BACT]

iii. The owner/operator shall operate A-1 at an oxidation temperature of at least 1400 degrees F. The District may adjust this minimum temperature, if source test data demonstrates that an alternate temperature is necessary for or capable of maintaining compliance with 95% overall system efficiency or greater when A-1 is abating the fixed roof tanks. [Basis: BACT]

III. REPORTING REQUIREMENTS

A) The Owner/Operator shall report the following to the Director of Enforcement of the District on the quarterly basis: [Basis: Cumulative Increase]

1. The total volume of gasoline throughput at the truck rack.
2. The total volume of liquids processed through the oil/water separators during the quarter.

B) Once the onshore vapor recovery system including vessel interconnection at the wharf is in operation, the Owner/Operator shall report to the Director of Enforcement of the District within 15 days after the close of each calendar quarter on the number of vessels that have been loaded at its marine terminal. These reports shall specify the percentage of said vessels that were hooked up to the Owner/Operator's onshore vapor recovery system during said quarter. With respect to those vessels into which organic liquids were loaded without being hooked up to said system, these reports shall summarize the reasons given by Owner/Operator's customers for their inability to secure vessels built or retrofitted to accommodate hook-up to said system. [Basis: Cumulative Increase]

C) The Owner/Operator shall keep records to document compliance with the valve, pump, and compressor inspection and maintenance requirements of condition II (C) above. [Basis: Cumulative Increase]

D) The Owner/Operator shall maintain all records required under this permit for at least 5 years and made available to a District representative upon request. [Basis: Regulation 2, Rule –6, Section 501]

SCHEDULE A

ORGANIC COMPOUND EMISSION CALCULATIONS

The Owner/Operator shall ensure that the sum of the following emission categories do not exceed 71.426 tons, per calendar year of organic compounds.

Cargo Loading Emission + Tanker Transit Emissions + Tanker Hoteling Emissions + Tanker Pumping Emission + Vapor Control Equipment Emission + Ballast Emissions + Tug Combustion Emissions + Tank Standing Losses + Fugitive Emissions + Tank Withdrawal Losses.

All calculations shall be performed in accordance with the procedures specified in Schedule D. [Basis: Cumulative Increase]

SCHEDULE B

OXIDES OF NITROGEN EMISSIONS CALCULATIONS

The Owner/Operator shall ensure that the sum of the following emission categories do not exceed 129.5 tons per calendar year of oxides of nitrogen.

Tug Combustion Emissions + Tanker Hotelling Emissions + Tanker Transit Emissions + Tanker Pumping Emissions + Vapor Control Equipment Combustion + Direct Fire Heater Combustion (excluding emergency diesel generators S-74 and S-75).

All calculations shall be performed in accordance with the procedures specified in Schedule D. [Basis: Cumulative Increase]

SCHEDULE C

SULFUR DIOXIDE EMISSION CALCULATIONS

The Owner/Operator shall ensure that the sum of the following emission categories do not exceed 83.5 tons per calendar year of sulfur dioxide.

Tug Combustion Emissions + Tanker Hotelling Emissions + Tanker Transit Emissions + Tanker Pumping Emissions + Vapor Control Equipment Combustion + Direct Fire Heater Combustion (excluding emergency diesel generators S-74 and S-75).

All calculations shall be performed in accordance with the procedures specified in Schedule E. [Basis: Cumulative Increase]

SCHEDULE D

FUGITIVE EMISSION CALCULATIONS

Emission factors from AP-42, with 80% control due to the Inspection and Maintenance program required under condition III (C). [Basis: Cumulative Increase]

Emission Factor

Existing Sources	Number	lbs/hr/source	Fugitive HC
Mixer & Pump Seals	17	0.045	0.782
Flanges	175	0.00056	0.098
Pipeline Valves	145	0.0005	0.0725
Open Ended Valves	95	0.005	0.4750
Pressure Relief Valves	1	0.36	0.36

Uncontrolled total, lbs/hr = 1.7875
Uncontrolled total, tons/yr = 7.83
Emissions at 80% control, tons/yr = 1.57

New Sources	Number(a)	Emission Factor lbs/hr/source	Fugitive HC
Mixer & Pump Seals	5	0.046	A x 0.046
Flanges	703	0.00056	B x 0.00056
Pipeline Valves	227	0.0005	C x 0.0005
Open Ended Valves	0	0.005	D x 0.005
Pressure Relief Valves	0	0.36	E x 0.36

Uncontrolled total, Total
Emissions at 80% control, Total x 0.2

a) Values for A, B, C, D & E to be determined from "as Installed" drawings or inspection.

VAPOR CONTROL EQUIPMENT/VAPOR RECOVERY SYSTEM EMISSIONS

During operation of the thermal oxidizer its emissions (based on District Source Testing Data) will be assumed to be as follows: [Basis: Cumulative Increase]

NOx: 9.68 lb/day + 0.1744 lb/1,000 barrels of all materials received into tanks attached to the vapor recovery unit.

Organics: 1.44 lb/1,000 barrels of all materials received into tanks attached to the vapor recovery unit.

FURNACE EMISSION CALCULATIONS (S-73 Direct Fired Heater)
(EPA AP-42, Section 1.4)

Organic Compounds	5.5 lb/MMcu.ft. of natural gas burned
NOx	100 lb/MMcu.ft. of natural gas burned
SO2	0.6 lb/MMcu.ft. of natural gas burned
CO	84 lb/MMcu.ft. of natural gas burned

TANK STANDING EMISSION CALCULATIONS (Tanks 13-16 only)

Calculate using equation 4 from AP-42 p 4.3-16 (9/85)
Where:

L(s) = K(s) x Vn x P* x D x M(v) x K(c)
L(s) = standing losses, lb/year of organics
K(s) = seal factor 1.2 for metallic shoe primary seal; 0.2 for rim mounted secondary seal.
V = average wind speed = 13 miles per hour
N = wind speed exponent = 1.5 for metallic shoe seal
P* = vapor pressure function

Note:
P for crude oils will be determined by monthly composite samples.
P for FCC feedstock, all gas oils and fuel oils = 0 for purpose of this calculation.
PA = atmospheric pressure = 14.7 psia
D = tank diameter = 237 feet
M(v) = molecular weight of vapor, 58 for gasoline and crude oil, 190 for No. 6 and all other products
K(c) = product factor = 0.4 for crude oil; = 1.0 for all other materials

TANK WITHDRAWAL EMISSION CALCULATIONS

Calculate using equation 5 from AP-42 d 4-3-16 (9/85):

L(w) = 0.943 QCW/D
where:
L(w) = withdrawal losses = lb/yr of organics
Q = throughput, bbl/year
C = shell clingage factors = 0.006
W = liquid density, lb/gal
Use:
8.2 for San Joaquin Valley Crude Oil and
7.8 for all other products if unknown
D = tank diameter = 237 feet

CARGO LOADING EMISSION CALCULATIONS

A) UNCONTROLLED LOADING

Crude Oil Cargos

The three following procedures are taken from API Publication 2514A Second Edition, September 1981 and are described on pp 1-3 of that document as "Correlations for Estimating Emissions from Loading and Ballasting of Crude Oil Tankers".

1. Cargos with no vapor pressure data available:

If information on the prior cargo and compartment status during ballast voyage as well as volatility of the crude of which the Owner/Operator loaded is unknown, the following emission factors shall be used.

All vessels: 1.0 pounds of VOC per 1,000 gallons of liquid transferred.

2. For crude oil cargos with vapor pressure greater than 1.5 psia:

a) When the prior cargo or arrival condition of the vessel is unknown and the volatility of the crude oil, which the Owner/Operator loaded is known, an arrival emission factor, Ea, of .86 lb/1,000 gallon loaded will be used. Generated emission shall be calculated as:

Eg = 1.84 x (0.44 x (TVP) - 0.42) x MxG/T
where:
Eg = generated emission, lb/1,000 gallon
TVP= true vapor pressure of loaded crude oil, psia
M = molecular weight of vapor, use 58 lb/lb-mole
G = vapor growth factor, use 1.02
T = loading temperature, Rankine

Total emission shall be calculated as:
Et = Ea + Eg
where:
Et = total loading emission, lb/1,000 gallon
Ea = arrival component
Eg = generated component

b) If adequate information is available about a specific previous cargo the following calculation procedures shall be used. These procedures require a characterization of the previous cargo as either "volatile" or "non-volatile" at loading conditions. "Volatile" has been defined as having a true vapor pressure at loading conditions in excess of 1.5 psia. Any crude stream that has a flash point in excess of 130F or initial boiling point excess of 302F shall be deemed to be "non-volatile" at loading conditions. The Owner/Operator shall be permitted to determine that crude oils not meeting this test are "non-volatile" by any of the three procedures described below:

i. The ship owner or charterer may inform the Owner/Operator in writing of the true vapor pressure at loading conditions, that the true vapor pressure did not exceed 1.5 psia, or of the Reid Vapor Pressure and loading temperature; or

ii. The vessel owner, charterer or prior load terminal operator may inform the Owner/Operator of the identity of the crude stream in the prior load. The crude stream may be characterized by reference to typical samples of assays of such streams along with the prior loading temperature to determine the true vapor pressure; or

iii. The ship owner, charterer, or terminal operator for the prior load may provide assay data or samples to determine Reid Vapor Pressure. Data for loading

conditions from a knowledgeable source shall be used to determine true vapor pressure at loading conditions.

Emissions from loading shall be calculated as:

Et = Ea + Eg
where:
Et = total loading emission, lb/1,000 gallon
Ea = arrival component
Eg = generated component

Arrival Emission Factor, lb/1000 gallon

Previous Cargo	Condition of Compartment	Arrival Emission factor
Non-Volatile	Any	0.33
	Volatile	Washed or Gas Freed 0.33
	Volatile	Ballasted 0.46
	Volatile	Uncleaned 0.86

If the prior cargo is unknown, it shall be assumed to be volatile. If the condition of the compartment is unknown, it shall be assumed to be uncleaned.

Eg = 1.84 x (0.44 x (TVP) - 0.42) x MxG/T
where:

Eg = generated emission, lb/1,000 gallon
TVP= true vapor pressure of loaded crude oil, psia
M = molecular weight of vapor, use 58 lb/lb-mole
G = vapor growth factor, use 1.02
T = loading temperature, Rankine

3. For crude oil Cargos with true vapor pressure less than 1.5 psia, emissions from loading non-volatile crude oils shall be calculated as:

Et = Ea + Eg
where:
Et = Total loading emission, lb/1,000 gallon
Ea = Arrival Emission
Eg = Generated Emissions
Ea = 12.46 SPaM/T
Eg = 12.46 SPgM/T
Where:
S = 0.2 for ships and ocean barges 0.5 for barges
Pa = True vapor pressure of prior cargo, psia = zero if tank has been water washed or gas freed = 0.75 psia if no data available.
Pg = true vapor pressure of crude oil loaded, psia
M = molecular weight or vapors, use 58 lb/lb-mole

T = loading temperature, Rankine

Gasoline Cargos

1. If information on the vessels' prior cargo and ballast voyage treatment is unknown the following emission factors shall be used.

	Total Loading Emission lb/1,000 gallon
Gasoline - Tanker/Ocean Barges	2.6
Gasoline – Barges	3.9

Note: Ocean barges are assumed to have a capacity greater than 100,000 bbls.

2. If adequate information is available, the following loading factors shall be used:

			Total Loading Emissions (lbs VOC/1,000 bbl loaded)		
Type of Vessel	Prior Cargo	Condition of Compartment	minimum ullage less than 10ft	minimum ullage between 10&20ft	minimum ullage more than 20ft
Tanker/Ocean Barge	Volatile	Uncleaned	109.2	94.5	79.8
		Ballasted	71.4	56.7	42.0
		Cleaned (washed)	63.0	48.3	33.6
		Gas Freed	29.4	4.7	0.0
	Non-Volatile	All	29.4	14.7	0.0
Barge less than 100,000 barrels capacity					
	Volatile	Uncleaned	163.8	163.8	163.8
		Ballasted	84.0	84.0	84.0
		Cleaned (washed)	84.0	84.0	84.0
		Gas Freed	84.0	84.0	84.0
	Non-Volatile	All	84.0	84.0	84.0

Volatile liquid is any hydrocarbon liquid with a true vapor pressure greater than 1.5 psia.

An Uncleaned compartment has had no treatment of any kind except routine heel washing.

A Ballasted compartment is an uncleaned cargo compartment that has been loaded with ballast water.

A cleaned compartment has been water washed.

A gas-freed compartment has been cleaned and airblown, such that the compartment is suitable for entry and hot work (such as welding).

Distillate Fuels

1. If adequate information on the vessel's prior cargo and ballast voyage treatment is available, the following emission factors shall be used to calculate emissions from loading diesel fuel and kerosene based jet fuels:

Total Loading Emissions
(lbs VOC/1,000 bbl loaded)

Type of Vessel	Prior Cargo	Condition of Compartment	Emission Factor
Tanker/Ocean Barge	Volatile	Uncleaned	79.8
		Ballasted	42.0
		Cleaned (washed)	33.6
		Gas Freed	0.0
	Non-Volatile	All	0.0
Barge less than 100,000 barrels capacity			
	Volatile	Uncleaned	163.8
		Ballasted	84.0
		Cleaned (washed)	84.0
		Gas Freed	0.0
	Non-Volatile	All	0.0

Volatile liquid is any hydrocarbon liquid with a true vapor pressure greater than 1.5 psia.

Definitions for compartment condition are the same as set forth above under gasoline cargos.

2. If any of the information necessary to ascertain the prior cargo or compartment condition of the vessels being loaded is unknown, the applicable worst-case assumption from the table above shall be used.

Other Volatile Cargos

Volatile organic compounds, other than gasoline or volatile crude oil, may be loaded at the terminal. Emissions from loading those materials shall be calculated as follows:

Et = 12.46 SPM/T
where:

Et = Total loading emission, lb/1,000 gallon loaded
S = 0.2 for ships and ocean barges 0.5 for barges
P = True vapor pressure of prior cargo, psia
M = molecular weight of vapors, use 58 lb/lb-mole
T = loading temperature, Rankine

For naphtha-based jet fuels, P will depend on the type of product (see AP-42, Table 4.3.2, Physical Properties of Typical Organic Liquids)

For other volatile organic liquids, the Owner/Operator shall obtain the data.

Volatile liquid is any hydrocarbon liquid with a true vapor pressure greater than 1.5 psia.

Fuel Oil and Other Non-Volatile Cargos

Non-volatile organic materials other than non-volatile crude oils and distillate fuels may be loaded at the terminal.

1. If adequate information on the vessel's prior cargo and ballast voyage treatment is available, the Owner/Operator shall use the following emission factors to calculate emissions from the loading of fuel oil and other non-volatile cargos:

Total Loading Emissions
(lbs VOC/1000 bbl loaded)

Prior Cargo:	Crude Oil		Gasoline/ Other Volatile	Diesel/ Kero Jet	Fuel Oil Other Non-Volatile
	Volatile	Non-Volatile	Organics	Fuel	Organics
Condition of Compartment					
Uncleaned	30.7	11.8	79.8	0	0
Ballasted	16.4	11.8	42.0	0	0
Water Washed	11.8	11.8	33.6	0	0
Gas Freed	0	0	0	0	0

Volatile liquid is any hydrocarbon liquid with a true vapor pressure greater than 0.5 psia.

Definitions for compartment condition are the same as set forth above under gasoline cargos

2. If any of the information necessary to ascertain the prior cargo of compartment condition of the vessels being loaded is unknown, the applicable worst-case assumption from the table above shall be used.

B) CONTROLLED LOADING

For all cargos carried on vessels for which vapor emissions during loading are controlled either by connection to the onshore vapor recovery system or by use of onboard vapor processing equipment the emissions after control shall be based on the uncontrolled emissions level modified by a factor representing redaction. Such factors shall be determined by source tests, approved by the APCO, and shall reflect operating characteristics of the actual vapor control equipment.

$a + BEt$

where:

a = a constant independent of the cargo loaded or uncontrolled loading emissions.

b = a constant

Et = uncontrolled level of loading emissions

BALLASTING EMISSION CALCULATIONS

Gasoline and Gasoline Components
1.6 lb/1,000 gallons unsegregated ballast water

Unsegregated Ballast Volume M-gallons =
42 x 7.5 x MDWT x (.15 - % segregate ballast/100)

MDWT = ship's displacement in thousands of dead-weight tons

CARGO PUMPING EMISSIONS

Emissions (lbs) = factor x (volume of cargo offloaded, Mbbls)

	Factor lb/Mbbls	
Ship Size	Organic	NOx
For Steam Vessels	0.09	0.67
For Other Vessels	0.09	1.08
For Barges	0.39	1.08

SOx emissions for cargo pumping shall be calculated as shown in Schedule E.

TRANSIT EMISSION CALCULATIONS

Ship Type

Ship	Fuel Consumption	Total Fuel Used 9 hrs	Emissions During 9 hrs Transit & Maneuvering

Size	Gal/hr	Transit	Part	Org	NOx	CO
20	210	1890	35.9	5.9	91.1	5.0
20- 29	341	3069	58.3	9.5	147.9	8.0
30- 39	394	3546	67.4	11.0	170.9	9.3
40- 49	459	4131	78.5	12.8	199.1	10.8
50- 59	630	4959	94.2	15.4	239.0	13.0
60- 79	761	5670	107.7	17.6	273.3	14.9
80- 99	840	6849	130.1	21.2	330.1	17.9
100-139	906	7560	143.6	23.4	364.4	19.8
Motor						
20	105	945	18.9	31.0	355.3	53.8
20- 29	236	2124	42.5	69.7	779.5	120.9
30- 39	289	2600	52	85.3	954.2	147.9
40- 49	341	3070	61.4	100.7	1126.7	174.7
50- 59	354	3190	63.8	104.6	1170.7	181.5
60- 79	394	3546	70.9	116.3	1301.4	201.8
80- 99	405	4131	82.6	135.5	1516.1	235.1
100-139	551	4959	99.2	162.7	1819.9	282.2

SOx emissions for ship transit shall be calculated according to the procedures specified in Schedule E.

Ships calling at Bay Area Locations other than Pacific Atlantic Terminals during the same trip shall be charged only one half of the transit emissions from the above tables.

HOTELLING EMISSION CALCULATIONS

Emission = factor x hours at dock

	Factor lb/hr	
Ship Size	Organic	NOx
less than 60 MDWT	.13	1.53
greater than 60 MDWT	.27	3.06
For Motor Vessels and Others		
less than 70 MDWT	.22	2.28
greater than 70 MDWT	.44	4.57
for barges, all sizes	0	0

SOx emission for hotelling shall be calculated as shown in Schedule E.

TUG EMISSION CALCULATIONS

For ships, Emission = factor x for all vessel calls

For barges, Emissions = factor for barges calling at other Bay Area Location
= factor x2, for barges calling only at the Pacific Atlantic Terminals

	Factor lb/call		
Ship	Organic	NOx	SOx
less than 50 MDWT	3.41	150	18.6
greater than 50 MDWT	6.81	299	37.2
Barges			
less than 100,000 barrels capacity	5.11	224	27.9
greater than 100,000 barrels capacity (Ocean Barges)	10.22	449	55.8

SCHEDULE E

Sulfur emissions will be based on the actual sulfur content fuels burned where possible. The Owner/Operator shall have three alternative procedures available for establishing the sulfur content of fuels. First, the Owner/Operator may provide fuel of known sulfur content to the ship. Second, the Owner/Operator may sample the ship's fuel for analysis by an outside laboratory qualified to perform Sulfur analyses on marine fuels. Third, in the absence of either of the two procedures mentioned above, assumed values below shall be used.

If the Owner/Operator elects to provide low sulfur fuel to a particular ship, a certified fuel analysis of the Sulfur content shall be used to establish SO2 emissions. The terminal manager shall instruct the ship's captain or his designated to burn only that fuel while within the District waters. The amount of fuel provided shall be adequate to fuel all the ship's requirements for hotelling, pumping and transit. A sample of the fuel provided shall be retained by the Owner/Operator for District analysis until at least 90 days following delivery of the quarterly report including that particular ship call. Records of the quantity of fuel provided, sulfur content, and burning instructions shall be retained by Permit for at least five year following the ship call.

If the Owner/Operator elects to sample the fuel from a particular ship, such sample shall be gathered by the ship's personnel and delivered to the Owner/Operator. This sample shall contain at least one-quart volume. After analysis the remaining portion of the samples shall be retained at the terminal and made available to the district for their independent analysis. All such samples shall be retained for at least 90 days following delivery of the quarterly report to the District. Samples for a calendar quarter may be combined by blending thoroughly equal parts of each sample gathered for each type of ship, that is one composite sample for steam ships and one composite sample for motor and other ships. At the Owner/Operator's option, each ship sample may be analyzed separately. An independent laboratory shall analyze such samples and the results of those analyses shall be used to establish sulfur emissions. The Owner/Operator shall report to the Director of Enforcement of the District results of all analyses performed.

Any failure by the Owner/Operator to report the sulfur analyses will subject them to an appropriate enforcement action.

If the Owner/Operator neither samples the fuel from any given ship, nor provides fuel to the ship, the sulfur content of that fuel shall be assumed to be 3.34% in the case of steam ships, or 1.5% in the case of motor ships and other ships. In the event that the Owner/Operator samples and cause to be analyzed fuels from at least 66.67% of all ships calling at terminal in a calendar year to which fuel was not provided, the weighted average of sample results may be used in the following calendar year in lieu of the assumed sulfur values described in the preceding paragraph. In calculating the weighted average, each analysis shall be weighted by the number of ships represented by that analysis, i.e., one if the sample was an individual ship sample or more than one if the sample was composite sample. The results of such analyses are subject to verification by the District and samples shall be available upon demand for that purpose. If the Owner/Operator samples and reports fewer than 66.67% of all ships to which fuel was not provided in a given calendar year, the assumptions for the following year shall be 3.34% for steam ships and 1.5% for motor and other ships. [Basis: Reg. 9-1-303]

TRANSIT EMISSION CALCULATIONS

Emissions per call = factor x fuel sulfur index
(for vessels calling at other Bay Area locations)

Emissions per call = factor x fuel sulfur index x 2
(for vessels calling only at Terminal)

Factors

Ship size	MDWT	Steam Vessels	Motor & Other
less than	30	244	75
	30-40	282	169
	40-50	328	207
	50-60	394	244
More than	60	451	254

CARGO PUMPING EMISSION CALCULATIONS

Sulfur oxide emissions for offloading cargos from marine vessels to shore tanks shall be calculated as follows:

$$\text{Emissions} = \frac{\text{fuel sulfur index}}{3.34} \times \frac{315 \text{ lb SO2}}{\text{M gal fuel}} \times \frac{32 \text{ lb S}}{64 \text{ lb SO2}}$$

HOTELLING EMISSION CALCULATIONS

Barges have no hotelling emissions.

Hotelling emissions will be calculated for ship as follows:

Emissions = R-factor x Hotelling time (hours) x R-Fuel
Sulfur Index + D-factor x Hotelling time x
D-Fuel Sulfur Index
Hotelling time = Hours from time the vessel is secure at the wharf until the time the last line is cast off.

	Steam Ships		Motor & Other	
Ship size,MDWT	R-Factor	D-Factor	R-Factor	D-Factor
less than 60	6.68	0.0	6.68	3.34
60-70	13.36	0.0	6.68	3.34
Greater Than 70	13.36	0.1	13.36	6.68

IV MARINE VESSEL LOADING VAPOR COMBUSTION UNIT (A-1)

1. Deleted, startup source test.

2. The Owner/Operator shall perform necessary source tests to establish a specific range of combustion zone temperatures which will ensure that the emissions of precursor organic compounds are reduced at least 95% by weight from uncontrolled conditions, or that the POC emissions do not exceed 2 lbs per 1000 barrels loaded. [Basis: Cumulative Increase]

3. The Owner/Operator shall install instrumentation to monitor and record the following: [Basis: Cumulative Increase]

   a. Static pressure developed in the marine tank vessel; and
   b. Oxidizer exhaust temperature.

4. The Owner/Operator shall calculate uncontrolled emissions as specified in Schedule D of the Permit Conditions established as part of application number 31329, and use a 95% (by weight) reduction factor to determine controlled emissions. The overall collection and control efficiency, as determined by source test, may be used in lieu of the 95% factor for determining controlled emissions. [Basis: Cumulative Increase]

5. Deleted, startup monitoring plan.

6. The Owner/Operator shall not load or permit the loading of a regulated organic liquid, as defined in Regulation 8, Rule 44, Section 204, into a marine tank vessel within the District whenever the marine vapor recovery system is not fully operational, except for operations specifically exempt from Regulation 8, Rule 44. The vapor recovery system shall be maintained to be leak free, gas tight, and in good working order. For

the purposes of this condition, "fully operational" shall mean the system is achieving the reductions required by Part No. 2 above. [Basis: Cumulative Increase]

7. The Owner/Operator shall maintain the Thermal Oxidizer (A-1) minimum incinerator temperature of at least 1400^{o}F. The vapor recovery system is not "fully operational" at any lower temperature. This minimum temperature may be adjusted by the District if source test data demonstrate that an another minimum incinerator temperature is necessary for, or capable of, maintaining compliance with Part No. 2 above. [Basis: Reg. 2-1-403]

   The Owner/Operator may conduct a source test for the purpose of lowering the minimum temperature requirement provided that the following has occurred:
   a. The facility has applied to the Engineering Division for a change of conditions.
   b. The Source Test Section was notified at least seven days prior to testing and the test protocol was deemed acceptable.
   c. The results of the test demonstrate that A-1 is capable of meeting the emission factor limits imposed in Part No. 2 for POC at the lower operating temperature. [Basis: Reg. 2-1-403]

8. The Owner/Operator shall conduct a leak test on all vessels loading under positive pressure prior to loading more than 20% of the cargo. The leak test is not intended to impede the loading of a gas-tight tank vessel. The leak test shall include all vessel relief valves, hatch covers, gauging connections, and vapor recovery hose connections. Leak test results shall be included in the quarterly reporting already required of the Owner/Operator. [Basis: Regulation 8, Rule 44]

9. The Owner/Operator shall not exceed a loading pressure greater than 80% of the lowest relief valve set pressure, including vessel relief valves, while loading a controlled marine vessel. [Basis: Cumulative Increase]

10. The Owner/Operator shall keep all maintenance records required for the vapor recovery system at this facility, which are subject to Regulation 8, Rule 44, shall be kept on site for five years and made available to the District upon request. [Basis: Regulation 2, Rule 1, Section 403]

11. The Owner/Operator shall conduct the District approved source test at A-1 on an annual basis to verify compliance with all applicable requirements specified in Part 2. The Owner/Operator of A-1 shall submit the source test report to the District within 30 days of the test. The result shall be kept on site for five years and made available to the District upon request. [Basis: Cumulative Increase]

IX. RECOMMENDATION

It is recommended that a change of permit condition be granted to Pacific Atlantic Terminals, LLC for the following equipment:

A-2 Trailer Mounted Combustor, 42.3 million BTU/hr, John Zink, PECS Unit, temporarily abating S-1 through S-12, S-18, S-19, S-27, and S-28 Fixed Roof Tanks.

Thu H. Bui
Air Quality Engineer II
Engineering Division
Date: _____

THB:Disk-s\PacificAT\14652\14652e

Application 15163, New Storage Tanks S-84, S-85, S-86, S-87, S-88, S-89 and S-90

EVALUATION REPORT
Pacific Atlantic Terminals, LLC
Application #15163 - Plant #17559

2801 Waterfront Road
Martinez, CA 94553

I. BACKGROUND

Pacific Atlantic Terminals, LLC has applied for an Authority to Construct/Permit to Operate for the following equipment:

S-84 Internal Floating Roof Tank 15004, 150' DIA X 53' H, 150,000 bbl capacity
S-85 Internal Floating Roof Tank 15005, 150' DIA X 53' H, 150,000 bbl capacity
S-86 Internal Floating Roof Tank 15006, 150' DIA X 53' H, 150,000 bbl capacity

S-87 Internal Floating Roof Tank 10204, 127' DIA X 50' H, 100,000 bbl capacity
S-88 Internal Floating Roof Tank 10205, 127' DIA X 50' H, 100,000 bbl capacity
S-89 Internal Floating Roof Tank 10206, 127' DIA X 50' H, 100,000 bbl capacity
S-90 Internal Floating Roof Tank 10207, 127' DIA X 50' H, 100,000 bbl capacity

These tanks will store gasoline and other petroleum products, which will be transferred to and from existing pipelines and marine vessels. Pacific Atlantic Terminals confirmed that the anticipated increase in vessel traffic would not exceed its existing permitted NOx, CO, SO2, PM10 and POC limits. These tanks will also be connected to the truck loading rack; however, it will not be used at this time. In fact, Pacific Atlantic Terminals has requested to shut down the truck loading rack operation because there is no demand for it. In the future, if the gasoline from sources S-84 through S-90 is transferred to the truck loading rack, Pacific Atlantic Terminals will need to review its truck loading rack operation and apply for an Authority to Construct/Permit to Operate.

Pacific Atlantic Terminals has applied to modify its Title V permit under Application 15222.

II. EMISSION INCREASES

The tanks will have a fixed roof on top, and an internal floating roof design. The floating roof deck will be cable supported with a single, center column and there are no adjustable leg fittings for this deck to minimize the emissions during tank degassing. The emissions from these tanks are calculated by EPA Tank 4.09d program using gasoline with Reid Vapor Pressure of 15 psi and Sacramento meteorological data. (See attached calculations)

For 150,000 bbls - Tank Emissions (EPA Tank 4.09d):
Throughput = 6,300,000 gal X 24 times/yr = 151,200,000 gal/yr for each tank
3 tanks total = 151,200,000 gal/yr X 3 = 453,600,000 gal/yr for 3 tanks.

	Annual (lb/yr)	Daily (lb/day)	
Rim loss	659.79	1.81	(365 day/yr)
Working loss	201.52	8.40	(24 time/yr)
Deck fitting loss	3,939.21	10.79	(365 day/yr)
Maximum emissions (1 tank)	4,800.52	21.00	

For 100,000 bbls - Tank Emissions (EPA Tank 4.09d):

Throughput = 4,200,000 gal X 24 times/yr = 100,800,000 gal/yr for each tank
4 tanks total = 100,800,000 gal/yr X 4 = 403,200,000 gal/yr for 4 tanks.

	Annual (lb/yr)	Daily (lb/day)	
Rim loss	558.62	1.53	(365 day/yr)
Working loss	160.30	6.68	(24 time/yr)
Deck fitting loss	3,939.21	10.79	(365 day/yr)
Maximum emissions (1 tank)	4,658.13	19.00	

Fugitive Component Emissions:
Implementation Guidelines for estimating mass Emissions of Fugitive Hydrocarbon Leaks at Facilities – February 1999". The emissions factors are contained in Table IV-1b, " 1995 EPA Protocol Marketing Terminal Average Emission Factors".

Fugitive sources	Number	Emission Factor kg/hr/source	Annual Emissions lbs/yr
Valves – light liquid	127	4.3 X 10-5	105.24
Flanges– light liquid	181	8.0 X 10-6	27.91
Pump seals – light liquid	1	5.4 X 10-4	10.42
Total			143.57

Total Emissions = (4,800.52 X 3) + (4,658.13 X 4) + 143.57 = 33,177.65 lb/yr or 16.589 tpy

III. TOXIC SCREENING ANALYSIS

Sources S-84 through S-90 required a health risk screening analysis because benzene emissions from seven sources exceeded the chronic toxic trigger level assuming the maximum vapor benzene concentration in the gasoline is at 1.4 % by weight (see attached benzene calculation). The tank emissions did not exceed the benzene acute trigger level.

The toxic risk was performed based on the cumulative impacts from all related projects permitted within the last two years per Regulation 2-5. The emissions from tanks S-79 and S-80 were included because the last one was given a Permit to Operate in November 2005 under application # 10493. The emissions from tanks S-81 through S-83 were included because they are in the process of installing them in October 2006 under application # 13774.

Toxic Pollutant	Benzene Emission Rate	Trigger Level
S-79	23.1 lb/yr	6.4 lb/yr
S-80	23.1 lb/yr	6.4 lb/yr
S-81	63.4 lb/yr	6.4 lb/yr
S-82	63.4 lb/yr	6.4 lb/yr
S-83	63.4 lb/yr	6.4 lb/yr
S-84	**67.5 lb/yr**	**6.4 lb/yr**
S-85	**67.5 lb/yr**	**6.4 lb/yr**
S-86	**67.5 lb/yr**	**6.4 lb/yr**
S-87	**65.5 lb/yr**	**6.4 lb/yr**
S-88	**65.5 lb/yr**	**6.4 lb/yr**
S-89	**65.5 lb/yr**	**6.4 lb/yr**
S-90	**65.5 lb/yr**	**6.4 lb/yr**

The cancer risk to the maximally exposed residential receptor is 0.6 in a million. The chronic hazard index is 0.0004 and an acute hazard index is 0.4. Thus, in accordance with Regulation 2-

5, the screen passes and the sources also comply with TBACT standards. (See attached toxic report dated 10/12/06)

IV. BEST AVAILABLE CONTROL TECHNOLOGY

BACT is triggered for this application because a VOC emission from each source (S-84 through S-90) is more than 10 lb/day per Regulation 2-2-301. Sources S-84 through S-90 are equipped with BACT(2) level with the installation of the internal floating roofs. These tanks are equipped with BAAQMD approved roof with metallic shoe primary seal and zero gap secondary seal, all meeting design criteria of Reg. 8, Rule 5. The metallic shoe primary seal is considered as equivalent to the liquid mounted primary seal by the District since the metallic shoe lasts longer in the long run and the emission increase is not much more. 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.

V. OFFSETS

Offsets are required for source S-84 through S-90 because the potential to emit from this facility is greater than 35 ton/yr per Regulation 2-2-302. Pacific Atlantic Terminals will provide offsets at a ratio of 1.15:1 for this application.

Offsets: 16.589 tpy X 1.15 = 19.077 tpy for this application
Pacific Atlantic Terminals had submitted the following Banking Certificate of Deposit to provide offsets for this project:

- Certificate # 997 for 16.395 tons of POC
- Certificate # 964 for 3.546 tons of POC and 11.352 tons of NOx
- Certificate # 965 for 0.185 ton of POC

Pacific Atlantic Terminals surrendered total 20.126 tons of POC. Thus, the Banking Certificate will be reissued to Pacific Atlantic Terminals in the amount of 1.049 tons of POC.

POC = 20.126 tpy – 19.077 tpy = 1.049 tpy

VI. PLANT CUMULATIVE INCREASE SINCE 4/5/1991

	Current Ton/yr	New Ton/yr	New Total Lbs/yr	New Total Tons/yr
POC =	0.00	16.589	33,178	16.589
NO_X =	0.00	0.00	0.00	0.00
SO_2 =	0.00	0.00	0.00	0.00
CO =	0.00	0.00	0.00	0.00
NPOC =	0.00	0.00	0.00	0.00
TSP =	0.00	0.00	0.00	0.00
PM_{10} =	0.00	0.00	0.00	0.00

X. STATEMENT OF COMPLIANCE

This application is subject to Regulation 8, Rule 5-305.2 and 305.3, 320, 321, 322, and 328, which requires that storage tanks larger than 39 thousand gallons be equipped with either liquid mounted or metallic shoe primary seals and a secondary subject to Regulation 8-5-321 and 322, respectively. Section 8-5-305.3 requires that tanks must be equipped with at least 3 viewing ports in the fixed roof of the tank. Section 8-5-328 requires that tank-degassing operations be controlled. Sources S-

81, S-82 and S-83 are expected to comply with the standards of Regulation 8, Rule 5 since the sources will have:

(d) Internal floating roof with either liquid or mechanical primary seal, and rim mounted secondary seal.
(e) Minimum of 3 viewing ports.
(f) Tank degassing with at least 90% control efficiency.

Sources S-84 through S-90 are subject and expected to comply with Regulation 10 - Standard of Performance for New Stationary, 40 CFR 60, Subpart Kb - Volatile Organic Liquid Storage Vessels. The internal floating roof will be equipped with either a liquid or mechanical shoe primary and rim mounted secondary seals.

This application is subject to NESHAP 40 CFR 63, Subpart R - National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals). The sources will comply with Section 63.432, which requires compliance with NSPS subpart Kb (Section 60.112b).

This 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 emission factors in accordance with Permit Handbook Chapter 4. However, Pacific Atlantic Terminals is exercising its Use Permit for the marine terminal expansion. The City of Martinez (CEQA lead agency) issued the final approved EIR, State Clearinghouse # 93091072, on November 10, 1994. The proposed seven new tanks in this project appeared to be consistent with the original proposed tank storage capacity and throughput. Therefore, this application may be deemed complete for CEQA purpose.

This project is over 1,000 ft from the nearest public school and is therefore not subject to the public notification requirements of Regulation 2-1-412.

PSD is not triggered.

XI. CONDITIONS

Condition for Sources S-84 through S-90, internal floating roof tanks, Pacific Atlantic Terminal, LLC, Application # 15163, Plant # 17559.

3. The owner/operator of S-84 through S-90 shall not exceed 856,800,000 gallons of non-exempt organics (defined in Regulation 2-1-123) throughput during any consecutive 12-month period. [Basis: Cumulative Increase]

4. The Owner/Operator shall store only gasoline, diesel and jet fuel in S-84 through S-90. [Basis: Cumulative Increase]

   a. A liquid other than those specified above may be stored in S-84 through S-90, provided that both of the following criteria are met:
      iii. POC emissions, based on the maximum throughput Part 1, do not exceed 33,178 pounds per year
      iv. Toxics emissions in pound per year, based on the maximum throughput in Part 1, do not exceed any risk screening trigger level.

3. The Owner/Operator shall equip Sources S-84 through S-90 with a metallic shoe primary seal and a zero-gap secondary seal. There shall be no ungasketed roof fittings. Except for roof legs and guide poles/wells, each roof fitting shall be of the design, which yields the minimum roof fitting losses (per EPA Compilation of Air Pollution Emission Factors, AP-42, Supplement E, Section

12.3.2, Table 12.3-11). The following list indicates the type of control required for a variety of typical roof fittings. Control techniques for roof fittings not included in this list shall be subject to District approval, prior to installing the roof on the tank.

Fitting Type	*Control Technique*
Access hatch	Bolted cover, gasketed
Guide pole / Well	Unslotted guide pole, gasketed sliding cover, or Slotted with controls per API 2517 Addendum (See Note 1)
Gauge float well	Bolted cover, gasketed
Gauge hatch / Sample well	Weighted mechanical actuation, gasketed
Vacuum breaker	Weighted mechanical actuation, gasketed
Roof drain	Roof drain does not drain water into product
Roof leg	Fixed or adjustable with vapor seal boot or gasket between roof leg and leg sleeve
Rim vent	Weighted mechanical actuation, gasketed

Note 1: Slotted Guide Pole Control Configuration, per Addendum to API Publication 2517, May 1994, shall include the following components:

a. Sliding cover.
b. Well gasket.
c. Float with float wiper approximately 1 inch above the sliding cover, or alternately a float with multiple wipers.
(Basis: BACT)

4. The maximum vapor benzene concentration in all hydrocarbon liquids stored in Storage Tanks S-84 through S-90 shall not exceed 1.4 % by weight. The owner/operator of sources S-84 through S-90 shall analyze gasoline stored in each of these tanks for benzene concentration at least once every 6 months. Each tank shall be sampled within 30 days of start-up. If the owner/operator can demonstrate that several tanks contain hydrocarbon from a single source (shipment), then a single benzene analysis may be performed for that group of tanks. These records shall be kept on file for at least 5 years after the date of entry and shall be made available to District personnel upon request. All tests shall be performed in accordance with District approved laboratory procedures. . [Basis: Toxics]

5. The Owner/Operator shall inspect and maintain all valves, flanges and pumps associated with this project according to the criteria of District Regulation 8-18 and any future revisions to this rule. [Basis: Reg. 8-18]

6. The Owner/Operator shall not transfer any gasoline from S-84 through S-90 to the tank truck loading rack (S-20). [Basis: Cumulative Increase]

7. In order to demonstrate compliance with the above Parts, the Owner/Operator of tanks S-84 through S-90 shall maintain the following records in a District approved log. These records shall be kept on site and made available for District inspection for a period of at least five years from the date that the record was made. [Basis: Record keeping]
   a. The type and VOC content of all materials stored and the dates that the materials were stored.
   b. The total daily throughput of each material stored, summarized on a monthly and annual basis.

XII. RECOMMENDATION

It is recommended that conditional Authority to Constructs be granted to Pacific Atlantic Terminals, LLC for the following equipment:

S-84 Internal Floating Roof Tank 15004, 150' DIA X 53' H, 150,000 bbl capacity
S-85 Internal Floating Roof Tank 15005, 150' DIA X 53' H, 150,000 bbl capacity
S-86 Internal Floating Roof Tank 15006, 150' DIA X 53' H, 150,000 bbl capacity

S-87 Internal Floating Roof Tank 10204, 127' DIA X 50' H, 100,000 bbl capacity
S-88 Internal Floating Roof Tank 10205, 127' DIA X 50' H, 100,000 bbl capacity
S-89 Internal Floating Roof Tank 10206, 127' DIA X 50' H, 100,000 bbl capacity
S-90 Internal Floating Roof Tank 10207, 127' DIA X 50' H, 100,000 bbl capacity

_____
Thu H. Bui
Senior Air Quality Engineer
Permit Services Division

*Date:*_____

Application 18800, S-73 Burner Replacement

ENGINEERING EVALUATION REPORT
PACIFIC ATLANTIC TERMINALS, MARTINEZ
PLANT NUMBER 17559
APPLICATION NUMBER 18800

I. BACKGROUND

Pacific Atlantic Terminals (PAT) operates a Bulk Terminal in Martinez, east of the Highway 680 Benicia Bridge close to the Tesoro wharf. Sometimes, when materials are heavy or viscous, part of the transfer operations includes heating the material in a direct-fired heater. The facility has requested to replace the burner at the following equipment:

S-73 Direct Fired Heater, Natural Gas Fired, 19.95 MMBtu/hr

S-73 was originally installed in 1996 with a Callidus Technologies Low NOx burner, rated at 25 MMBtu/hr. The original burner was found unable to comply with the permitted emission limits (20 ppm NOx and 50 ppm CO) in 2006, and therefore it was replaced with a Cleaver Brooks Pro-Fire Low-NOx burner, rated at 20 MMBut/hr, under Application 15676.

In this application, the facility again requested to replace the existing burner with a Grodon-Piatt Low NOx burner Model FRMB, rated at 19.95 MMBtu/hr. The new burner is the same size burner as the existing burner, and the facility proposed to comply with the existing permitted emission limits (20 ppm NOx and 50 ppm CO) and to have the natural gas usage limit (90 million standard cubic feet per year) unchanged.

Because the burner replacement project is considered as an alteration as defined in Regulation 2-1-233.1 and the facility has certified for all pollutants that the alteration does not result in an increase in emissions, the project is qualified for the Limited Exemption, Accelerated Permitting Program, per Regulation 2-1-106.

II. EMISSION CALCULATIONS

The new Low-NOx burners are being installed to comply with existing permit conditions:

NO_x: 20 ppmvd (@ 3% O_2); Permit Condition 13720, Part 2
CO: 50 ppmvd (@ 3% O_2); Permit Condition 13720, Part 3

It is the same size as the existing burner. In addition, PAT has requested the natural gas usage limit of 90 MMSCF (~900,000 therms) in any consecutive 12-month period (Permit Condition 13720. Part 1) remain unchanged. Therefore, there are no changes in emissions for this S-73 heater due to this application.

III. CUMULATIVE EMISSIONS

There are no changes to the facility cumulative increase due to this alteration.

IV. APPLICABLE REQUIREMENTS

There is no change in the applicable requirements for S-73 heater. The source will continue to comply with Regulation 6, Rule 1 Particulate Matter and Visible Emissions, Regulation 9, Rule 1 Inorganic Gaseous Pollutants – Sulfur Dioxide, and Regulation 9, Rule 7 Nitrogen Oxides And Carbon Monoxide From Industrial, Institutional, And Commercial Boilers, Steam Generators, And Process Heaters.

PAT is also aware of the final emission limits in Regulation 9-7-307 amended on July 30, 2008, and has stated that the facility will meet the compliance deadlines in Regulation 9-7-308.

This project is not within 1000 feet of any school and therefore not subject to the public notice requirement of Regulation 2-1-412.

There is no increase in emissions associated with this heater alteration. Therefore a toxic risk screen is not required and TBACT does not apply.

The application 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 fixed standards and objective measurements outlined in the Permit Handbook Chapter 2.1, and therefore, is not discretionary as defined by CEQA.

NSPS, NESHAPS, BACT, PSD and Offsets do not apply for this alteration.

V. PERMIT CONDITIONS

Permit Condition 13720 will be modified as shown below in underlined/strikeout format. The reference to Regulation 9-7-301.2 in Part 5 is changed to 301.4 because the newly adopted Regulation 9-7 dated July 30, 2008 has moved the interim CO emission limit to Section 301.4. The amendments of this rule also include the new final emission limits in Section 307 with a compliance schedule in Section 308. Because the compliance schedule is set up in relation to all affected devices in a facility, the exact effective date of the final emission limits for S-73 cannot be determined at this point and therefore are not included in the permit conditions. Once S-73 becomes subject to Section 307, the reference to Section 301 in Part 5 shall be updated again.

COND# 13720
S-73, DIRECT FIRED HEATER

1. The Owner/Operator shall not exceed 90 million standard cubic feet (scf) of natural gas usage at S-73 in any consecutive 12-month period. [Basis: Cumulative Increase]

2. The Owner/Operator of S-73 shall not exceed 20 ppmv of NOx concentrations @ 3% O2 as determined using District Source Test Method 13 A or B. [Basis: BACT]

3. The Owner/Operator of S-73 shall not exceed 50 ppmv of CO concentrations @ 3% O2 as determined using District Source Test Method 6. [Basis: BACT]

4. The Owner/Operator of S-73 shall use natural gas exclusively. [Basis: BACT]

5. Within 30 days of startup, the Owner/Operator shall conduct an initial District approved source test, and annually thereafter, in order to determine compliance with parts 2, 3, Regulation 9-7-301.1, and Regulation 9-7-301.4~~2~~. All source testing shall be performed in accordance with the District's Manual of Procedures. The facility shall receive approval from the District's Source Test Manager for installation of test ports and source testing procedures. The results shall be delivered to the Director of Enforcement of the District no later than 30 days from the date of the source test. [Basis: Regulation 9, Rule 7]

6. The Owner/Operator shall use a non-resettable natural gas flow meter in order to demonstrate compliance with part #1. Natural gas usage shall be recorded in a District approved monthly log and retained for at least 5 years from the date of entry. This log shall be kept on site and made available to District staff upon request. [Basis: Regulation 2, Rule 1, Section 403]

7. Deleted. [Fuel Oil no longer used as fuel at S-73]

VI. RECOMMENDATIONS

It is recommended that an Authority to Construct be issued to Pacific Atlantic Terminals for the following:

S-73 Oil Heater, Natural Gas Fired, 19.95 MMBtu/hr

By: _____ Date:_____

Xuna Cai, Air Quality Engineer November 13, 2008

Application 20996, S-91 Emergency Firewater Pump

ENGINEERING EVALUATION
Plains Products Terminals, LLC
Plant: 17559
Application: 20996

BACKGROUND

Plains Products Terminals, LLC at Martinez (Plains) has applied to obtain an Authority to Construct (AC) and/or a Permit to Operate (PO) for the following equipment:

S-91 Emergency Standby Fire Pump: Diesel Engine, Make John Deere, Model JX6H-UFADF0, Model Year 2009, Rating 460 BHP

The new fire pump is intended to replace the existing diesel engine, S-74. It will be located at the fire pump host at the marine oil terminal trestle in Martinez.

EMISSIONS

Basis:
- 460 hp output rating
- 50 hr/yr operation for testing and maintenance
- NMHC + NOx, CO and PM10 emission factors provided by CARB Certification with Executive Order U-R-004-0370, where POC is assumed to be 5% of NMHC + NOx and NOx is assumed to be 95% of NMHC + NOx
- SO2 emissions are quantified based on the full conversion of 0.0015 wt% (~ 15 ppm) sulfur in the ULS diesel fuel. The SO2 emission factor was derived from EPA AP-42, Table 3.4-1.

Annual Emissions:
Annual emissions are calculated based on the number of hours per year of operation for testing and maintenance.

NOx	= (	2.41	g/hp-hr) (	460	hp) (	50	hr/yr) (lb/454g) =	122.02	lb/yr	=	0.061	TPY
CO	= (	0.45	g/hp-hr) (	460	hp) (	50	hr/yr) (lb/454g) =	22.67	lb/yr	=	0.011	TPY
POC	= (	0.13	g/hp-hr) (	460	hp) (	50	hr/yr) (lb/454g) =	6.42	lb/yr	=	0.003	TPY
PM_{10}	= (	0.07	g/hp-hr) (	460	hp) (	50	hr/yr) (lb/454g) =	3.78	lb/yr	=	0.002	TPY
SO_2	= (	0.000055	g/hp-hr) (	460	hp) (	50	hr/yr) (lb/454g) =	0.003	lb/yr	=	0.000001	TPY

Daily Emissions:
Daily emissions are calculated to establish whether a source triggers the requirement for BACT (10 lb/highest day total source emissions for any class of pollutants). 24-hr/day of operation will be assumed since no daily limits are imposed on intermittent and unexpected operations.

NOx	= (	2.41	g/hp-hr) (	460	hp) (	24	hr/day) (lb/454g) =	58.57	lb/day

CO	= (	0.45	g/hp-hr) (	460	hp) (	24	hr/day) (lb/454g) =	10.88	lb/day
POC	= (	0.13	g/hp-hr) (	460	hp) (	24	hr/day) (lb/454g) =	3.08	lb/day
PM_{10}	= (	0.07	g/hp-hr) (	460	hp) (	24	hr/day) (lb/454g) =	1.81	lb/day
SO_2	= (	0.000055	g/hp-hr) (	460	hp) (	24	hr/day) (lb/454g) =	0.001	lb/day

Contemporaneous Emission Reduction Credits:
S-91 is intended to replace the existing standby engine (S-74). Therefore, the onsite contemporaneous emission reduction credits are calculated for shutting down S-74.

According to the facility's records, S-74 was operated for 26 hours per year on average over the last three years, which is less than the permitted limit for reliability-related testing.

According to Application 4684, the engine of S-74 rated at 157 bhp was installed prior to year 2000, and no emission testing data is available. Pursuant to the Title 17, CCR Section 93115, Airborne Toxics Control Measure for Stationary Compression Ignition Engines, all new stationary emergency standby diesel-fueled IC engines have to meet the Diesel PM Standard of no greater than 0.15 g/bhp-hr, and the Tier 1 standards for other pollutants when no off-road engine certification standards have been established for an off-road engine. The Tier 1 standards for engines in between 100 hp and 174 hp are the following:

NMHC: 1.3 g/kW-hr
NOx: 9.2 g/kW-hr
CO: 11.4 g/kW-hr

Therefore, the emissions reduction credits for shutting down S-74 are:

NOx	= (	6.86	g/hp-hr) (	157	hp) (	26	hr/yr) (lb/454g) =	61.68	lb/yr	=	0.031	TPY
CO	= (	8.50	g/hp-hr) (	157	hp) (	26	hr/yr) (lb/454g) =	76.44	lb/yr	=	0.038	TPY
POC	= (	0.97	g/hp-hr) (	157	hp) (	26	hr/yr) (lb/454g) =	8.72	lb/yr	=	0.004	TPY
PM_{10}	= (	0.15	g/hp-hr) (	157	hp) (	26	hr/yr) (lb/454g) =	1.34	lb/yr	=	0.001	TPY

PLANT CUMULATIVE INCREASE (tons/yr)

Pollutant	Current	Application Increase	Contemporaneous Reduction	New Total
NOx	0.000	0.061	0.031	0.030
CO	0.000	0.011	0.038	0.000
POC	0.000	0.003	0.004	0.000
PM_{10}	0.000	0.002	0.001	0.001

TOXICS RISK SCREENING ANALYSIS

This application required a Toxics Risk Screen because the diesel particulate emissions are greater than the toxic trigger level as shown below.

Toxic Pollutant Emitted	Emission Rate (lb/yr)	Risk Screening Trigger (lb/yr)
PM10 (Diesel Particulate)	3.78	0.58

Per the attached September 10, 2009 memo from Jane Lundquist, results from the health risk screening analysis indicate that the maximum cancer risk is 0.1 in a million and the maximum chronic non-cancer hazard index is 0.00006 for 24 hours of operation per year. After the analysis has been perform, the facility requested 50 hours of operation per year. Since the health risks are directly proportional to the emissions, an increase in operating hours will result in an increase in emissions and consequently an increase in the health risks. For 50 hours of operation per year, the corresponding maximum cancer risk is 0.2 in a million and the corresponding maximum chronic non-cancer hazard index is 0.0001. In accordance with the District's Regulation 2-5, this risk level is considered acceptable because the caner risk is less than 1 in a million and the chronic hazard index is less than 0.20.

BACT

In accordance with Regulation 2, Rule 2, Section 301, BACT is triggered for any new or modified source with the potential to emit 10 pounds or more per highest day of POC, NPOC, NOx, CO, SO_2 or PM_{10}.

Based on the emission calculations above, the owner/operator of S-91 is subject to BACT for the following pollutants: NOx and CO. The BACT/TBACT Workbook does not address emergency standby fire pump engines. A search of the CARB BACT Clearinghouse, EPA Clearinghouse, SCAQMD, and SJVAPCD for emergency standby fire pump engines with a rated power between 300-600 bhp, yielded a NOx BACT determination by Maryland Department of the Environment of 3.0 g/bhp-hr on 11-12-2008 and a CO BACT determination by EPA Region 9 at Riverside of 1.05 g/bhp-hr on 4-25-2007. Both standards are more stringent than the applicable requirements in CARB Stationary Diesel ATCM and NSPS Subpart IIII. Therefore, it is proposed that BACT for direct-drive emergency standby fire pump engines with a rated power between 300 - 600 bhp be compliance with 3.0 g/bhp-hr for NOx and 1.05 g/bhp-hr for CO. This engine complies with the proposed BACT since it is certified to 2.41 g/bhp-hr for NOx and 0.45 g/bhp-hr for CO according to CARB Executive Order U-R-004-0370.

OFFSETS

Offsets must be provided for any new or modified source at a facility that emits or will be permitted to emit more than 10 tons per year of POC or NOx. If a facility emits or will be permitted to emit 35 tons per year or more, the facility must provide the offsets at a 1.15 to 1.0 ratio. Because the permitted emission for NOx at this facility is more than 35 TPY , the facility has agreed to provide offset credits for the emission increase of NOx (0.030 TPY) using Banking Certificate # 1009 at a 1.15 to 1.0 ratio.

Offsets must also be provided for any new or modified source at a Major Facility, which will result in a cumulative increase minus any contemporaneous emission reduction credits at the facility for PM in excess of 1.0 ton per year since April 5, 1991. According to the Databank, the cumulative increase minus any contemporaneous emission reduction credits, including this

application, will be 0.001 TPY. Therefore, no offsets are required for PM emission increase in this application.

NSPS

40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines applies to stationary fire pump engines that were manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

Per 60.4205(c), owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in Table 4 to Subpart IIII of Part 60, for all pollutants.

This engine is model year 2009 and between 300 and 600 hp. The applicable requirements from Table 4 are:

NMHC+NOx: 3.0 g/bhp-hr
PM: 0.15 g/bhp-hr

According to CARB Executive Order U-R-004-0370, S-91 is certified to comply with these standards.

NESHAP

This engine is not subject to the emission or operating limitations in 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, because it is an emergency stationary reciprocating internal combustion engine (40 CFR 63.6600(c)).

CARB STATIONARY DIESEL ENGINE ATCM

The State Office of Administrative Law approved the Airborne Toxic Control Measure (ATCM) on November 8, 2004. State law requires the local Air Districts to implement and enforce the requirements of the ATCM. Effective January 1, 2005, there is a prohibition on the operation of new diesel emergency standby engines greater than 50 bhp unless the following operating requirements and emission standards are met:

The CARB Stationary Diesel ATCM Section 93115.6(a)(4) requires new direct-drive emergency standby fire pump engines to meet Tier 3 off-road emission standards until 3 years after Tier 4 standards are applicable to off-road engines.

The emergency standby diesel engine (S-91) is in compliance with the above ATCM requirements. The diesel engine will operate for no more than 50 hours per year for maintenance and reliability testing. The engine is subject to the Tier 3 off-road CI engine standards for PM, HC, NOx, NMHC+NOx and CO, and it is certified to comply with these standards according to CARB Executive Order U-R-004-0370.

STATEMENT OF COMPLIANCE

S-91 will be operated as an emergency standby engine and therefore is not subject to the emission rate limits in Regulation 9, Rule 8 ("NOx and CO from Stationary Internal Combustion Engines"). S-91 is exempt from the requirements of Sections 9-8-301 through 305, 501 and 503 per Reg. 9-8-110.5 (Emergency Standby Engines). S-91 is subject to and expected to comply with 9-8-330 (Emergency Standby Engines, Hours of Operation) since non-emergency hours of operation will be limited in the permit conditions to 50 hours per year. S-91 is also subject to and expected to comply with monitoring and record keeping requirements of Regulation 9-8-530 and the SO2 limitations of 9-1-301 (ground-level concentration) and 9-1-304 (0.5% by weight in fuel). Regulation 9-8-530 requirements are incorporated into the proposed permit conditions. Compliance with Regulation 9, Rule 1 is very likely since diesel fuel with a 0.0015% by weight sulfur is mandated for use in California. Like all combustion sources, S-91 is subject to Regulation 6, Rule 1 ("Particulate Matter"). Regulation 6-1-303.1 limits opacity from internal combustion engines to Ringelmann 2. This engine is not expected to produce visible emissions or fallout in violation of this regulation and will be assumed to be in compliance with Regulation 6-1.

This application is considered to be ministerial under the District's 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 emission factors in accordance with Permit Handbook Chapter 2.3.1.

This facility is greater than 1,000 feet from the nearest school and therefore is not subject to the public notification requirements of Regulation 2-1-412.

PSD is not triggered.

PERMIT CONDITIONS

S-91 will be subject to Permit Condition 24470 and 22850 as shown below. In addition, the facility has facility-wide emission limits for all criteria pollutants in Permit Condition 1253, and the emissions from S-91 shall be included when the facility demonstrates compliance with these emission limits.

CONDITION 24470

1. The owner/operator shall remove S-74 (Emergency Standby Diesel Engine) from service prior to the start-up of S-91.
   [Basis: Cumulative Increase; Offsets]

CONDITION 22850

1. Operating for reliability-related activities is limited to 50 hours per year per engine.
[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(3) or (e)(2)(B)(3)]

2. The owner or operator shall operate each emergency standby engine only for the following purposes: to mitigate emergency conditions, for emission testing to demonstrate compliance with a District, state or Federal emission limit, or for reliability-related activities (maintenance and other testing, but excluding emission testing). Operating hours while mitigating emergency conditions or while emission testing to show compliance with District, state or Federal emission limits is not limited.
[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(3) or (e)(2)(B)(3)]

3. The owner/operator shall operate each emergency standby engine only when a non-resettable totalizing meter (with a minimum display capability of 9,999 hours) that measures the hours of operation for the engine is installed, operated and properly maintained. [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(4)(G)(1)]

4. Records: The owner/operator shall maintain the following monthly records in a District-approved log for at least 36 months from the date of entry (60 months if the facility has been issued a Title V Major Facility Review Permit or a Synthetic Minor Operating Permit). Log entries shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request.

a. Hours of operation for reliability-related activities (maintenance and testing).
b. Hours of operation for emission testing to show compliance with emission limits.
c. Hours of operation (emergency).
d. For each emergency, the nature of the emergency condition.
e. Fuel usage for each engine(s).

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(4)(I), (or Regulation 2-6-501)]

5. At School and Near-School Operation: If the emergency standby engine is located on school grounds or within 500 feet of any school grounds, the following requirements shall apply:

The owner or operator shall not operate each stationary emergency standby diesel-fueled engine for non-emergency use, including maintenance and testing, during the following periods:
a. Whenever there is a school sponsored activity (if the engine is located on school grounds).
b. Between 7:30 a.m. and 3:30 p.m. on days when school is in session "School" or "School Grounds" means any public or private school used for the purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in a private home(s). "School" or "School Grounds" includes any building or structure, playground, athletic field, or other areas of school property but does not include unimproved school property. [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(1)] or (e)(2)(B)(2)]

RECOMMENDATION

Issue an Authority to Construct to Plains for:

S-91 Emergency Standby Fire Pump: Diesel Engine, Make John Deere, Model JX6H-UFADF0, Model Year 2009, Rating 460 BHP

_____

Xuna Cai
Air Quality Engineer
Engineering Division

Application 23218, S-30 Oil/Water Separator

ENGINEERING EVALUATION
Plains Products Terminals LLC
Plant #17559
Application #23218

I. BACKGROUND

Plains Products Terminals, LLC. (Plains) is applying for an Authority to Construct and/or Permit to Operate an new oil-water separator at its Martinez terminal:

S-30 Oil Water Separator: Make Highland Tank, Model R-HTC-GSH-S-J 5000, 500 GPM; Abated by A-30 Caron Absorption System: Make Siemens Vent-Scrub Model No. 200, Two Carbon Vessels in Series, 200 lb Carbon and 100 CFM Each Vessel.

The new source is to replace the existing oil-water separator, S-23. The facility proposed a throughput limit of 500,000 gallons of wastewater per year. A flow meter will be installed to keep track of the amount of total wastewater processed at S-30.

II. EMISSION CALCULATIONS

Annual Emissions:

Basis:
- An annual throughput of 500,000 gallons.
- An emission factor of 0.2 lb/1000 gal. This factor is based on EPA, AP-42, Chapter 5.1 Petroleum Refining, Table 5.1-2 for controlled oil-water separator. The applicable control technologies are covered separator and/or vapor recovery systems. Since S-30 is both covered and abated by a vapor recovery system, the controlled factor is used.
- Only POC emissions are expected.

Annual POC Emissions = (500,000 gal/yr) (0.2 lb POC/1000 gal) = 100 lb/yr = 0.050 ton/yr

Contemporaneous Emission Reduction Credits:

S-30, Oil-Water Separator, in this application is intended to replace the existing oil-water separator (S-23). Therefore, the onsite contemporaneous emission reduction credits are calculated for shutting down S-23.

According to the facility's records, S-23 processed 96,075 gallons of wastewater per year on average over the last three years. There is no throughput limit on S-23 in permit condition.

S-23 was built prior to 1979, and no emission testing data is available to determine the baseline emission rate. However, it must comply with the current Regulation 8-8 since 2004, and it is equipped with a vapor-tight fixed cover to comply with Regulation 8-8-302. Therefore, the controlled emission factor from AP-42, Table 5.1-2 is used since covered separator is listed as applicable control technologies in this table.

POC Emission Reduction Credits = (96,075 gal/yr) (0.2 lb POC/1000 gal) = 19.2 lb/yr = 0.010 ton/yr

Maximum Daily Emissions:

Daily emissions are calculated to establish whether a source triggers the requirement for BACT (10 lb/highest day total source emissions for any class of pollutants). A full 24-hour day and the maximum capacity of 500 GPM will be assumed since no daily limits are imposed on the operation.

Max. Daily POC Emissions = (500 gal/min) (60 min/hr) (24 hr/day) (0.2 lb/1000 gal) = 144 lb/day

III. PLANT CUMULATIVE INCREASE SINCE 4/5/1991

POC = 0 (existing, post 1991) + 0.050 tpy (application) – 0.010 tpy (reduction credits) = 0.040 tpy

IV. OFFSETS

Offsets are required from the facility per Regulation 2-2-302 because the facility has been permitted to emit more than 35 tons POC per year. Emission offsets shall be provided for the POC emissions (0.040 TPY) at a 1.15 to 1.0 ratio. The facility has submitted the Bank Certificate 1256 with 0.744 ton/yr of POC credits. 0.040 TPY POC credits will be subtracted from the Bank Certificate 1256.

V. TOXICS SCREENING ANALYSIS

Wastewater processed at S-30 can contain various amounts of gasoline and other petroleum products. The worse case scenario, which assumes that the vapor has similar compositions as gasoline vapor, is used to estimate the maximum toxic air contaminant emissions. The emissions of potential toxic air contaminants (TAC) from this operation are shown below:

TAC	Weight % in Vapor *	*Annual Emission (lb/yr)*	*Chronic Trigger Level (lb/yr)*	Acute Trigger *Level (lb/hr)*	*Trigger levels exceeded?*
Benzene	**0.4**	**0.4**	**3.8**	**2.9**	**No**
Ethylbenzene	**0.1**	**0.1**	**43**	**n/a**	No
Toluene	**1.1**	**1.1**	**12,000**	**82**	No
Xylenes	**0.4**	**0.4**	**27,000**	**49**	No
n-Hexane	**1.4**	**1.4**	**270,000**	**n/a**	No
Naphthalene	**0.00027**	**0.00027**	**3.2**	**n/a**	No

**Source: USEPA, Gasoline Distribution Industry (Stage I) - Background Information for Proposed Standards. Office of Air Quality Planning and Standards, Research Triangle Park, NC. 27711. EPA-453/R-94-002a, Table 3-2. January 1994. In addition, Estimated Naphthalene Weight % in Gasoline Vapor per USEPA - National Emission Standards for Hazardous Air Pollutants for Source Categories: Gasoline Distribution Bulk Terminals, Bulk Plants Pipeline Facilities, and Gasoline Dispensing Facilities [Federal Register: November 9, 2006 (Volume 71, Number 217).*

Since the estimated TAC emissions are less than the trigger levels of Regulation 2-5, a Health Risk Screening Analysis is not required

VI. BEST AVAILABLE CONTROL TECHNOLOGY

Per Regulation 2-2-301, S-30 triggers BACT because emissions of POC are in excess of 10.0 pound per highest day (144 lb POC/day). According to the District's BACT/TBACT Workbook, Document # 177.2.1 dated October 4, 1991, the BACT requirement for oil water separators with 250 GPM or more capacity is vapor-tight fixed cover and vented to vapor recovery system with combined collection and destruction efficiency of 95%. The proposed oil-water separator is equipped with vapor-tight fixed cover and abated by a vapor recovery system consisting of two carbon vessels in series. The carbon system is a typical control technology and is expected to achieve a destruction efficiency greater than 95%.

Source:	***Water Treating - Oil/Water Separator***	Revision:	***1***
		Document #:	***177.2.1***
Class:	***≥250 Gallons/min***	Date:	***10/04/91***

POLLUTANT	BACT 1. Technologically Feasible/ Cost Effective 2. Achieved in Practice	TYPICAL TECHNOLOGY
POC	1. *n/d* 2. *Vapor-tight fixed cover and vented to vapor recovery system w/ combined collection and destruction/recovery efficiency of ≥95%*[a]	1. *n/d* 2. *BAAQMD Approved Design and Operation*[a]

References

a. BAAQMD

VII. STATEMENT OF COMPLIANCE

The owner/operator of S-30 is subject to and expected to comply with Regulation 8-8: Wastewater Collection and Separation Systems. The capacity of S-30 is 500 GPM, and therefore S-30 is subject to the requirements in Section 302. It complies with Section 302.3 because it is equipped with a vapor-tight fixed cover with a carbon adsorption system which is expected to have a combined collection and destruction efficiency of at least 95% by weight. The recording keeping requirements in Section 503 will be included in the permit condition.

CEQA: This application is considered to be ministerial under the District's 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 emission factors in accordance with Permit Handbook Chapter (3.3).

Watersbill: This project is greater than 1,000 ft from the nearest public school and therefore is not subject to the public notification requirements of Regulation 2-1-412.

New Source Performance Standards (NSPS):
S-30 is not subject to 40 CFR 60 Subpart QQQ: Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems because it is not located at a refinery.

National Emission Standards for Hazardous Air Pollutants (NESHAP):
S-30 is not subject to NESHAPS 40 CFR 63 Subpart VV: National Emission Standards for Hazardous Air Pollutants for Oil-Water Separators and Organic-Water Separators per Section 63.1040. The facility is not subject to another subpart of 40 CFR parts 60, 61, or 63 referencing the use of Subpart VV for oil-water separator.

Prevention of Significant Deterioration (PSD):

The emission increase resulted from this project is expected to be less than 1 TPY of any criteria pollutants. Since they are far below the PSD thresholds, the project is not subject to PSD review.

VIII. PERMIT CONDITIONS

S-30 will be subject to the following permit condition:

Permit Condition Number 24966

1. The owner/operator of S-30 shall not exceed wastewater throughput limits of 500,000 gallons during any consecutive twelve-month period. (Basis: Cumulative Increase)

2. The owner/operator shall vent Source S-30 at all times to Abatement Device A-30, two (200 lb minimum capacity) activated carbon vessels arranged in series. Influent vapor flow shall not exceed 100 scfm. (basis: Regulation 8-40-302; BACT)

3. The owner/operator of S-30 shall monitor with a photo-ionization detector (PID), flame-ionization detector (FID), or other method approved in writing by the Air Pollution Control Officer at the following locations:

a. At the inlet to the second to last carbon vessel in series.
b. At the inlet to the last carbon vessel in series.
c. At the outlet of the carbon vessel that is last in series prior to venting to the atmosphere.

When using an FID to monitor breakthrough, readings may be taken with and without a carbon filter tip fitted on the FID probe. Concentrations measured with the carbon filter tip in place shall be considered methane for the purposes of these permit conditions. (basis: Cumulative Increase, BACT)

4. The owner/operator shall record these monitor readings in a monitoring log at the time they are taken. The monitoring results shall be used to estimate the frequency of carbon change-out necessary to maintain compliance with parts 5 and 6, and shall be conducted on a daily basis. The owner/operator of this source may propose for District review, based on actual measurements taken at the site during operation of the source, that the monitoring schedule be changed based on the decline in organic emissions and/or the demonstrated breakthrough rates of the carbon vessels. Written approval by the District's Engineering Division must be received by the owner/operator prior to a change to the monitoring schedule. (basis: Cumulative Increase, BACT)

5. The owner/operator shall change out the second to last carbon vessel with unspent carbon upon breakthrough, defined as the detection at its outlet of the higher of the following:

a. 10 % of the inlet stream concentration to the carbon vessel.
b. 10 ppmv or greater (measured as C1).

(basis: Cumulative Increase, BACT)

6. The owner/operator shall change out the last carbon vessel with unspent carbon upon detection at its outlet of 10 ppmv or greater (measured as C1). (basis: Cumulative Increase, BACT)

7. The owner/operator of S-30 shall maintain the following records for each month of operation of the source:

a. Quantities of wastewater processed.
b. Monthly throughput shall be totaled for each consecutive twelve-month period.
c. Each monitor reading or analysis result for the day of operation they are taken.
d. The dates and the number of carbon beds removed from service.

All records shall be retained on-site for five years, from the date of entry, and made available for inspection by District staff upon request. These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable District Regulations. (Basis: Cumulative Increase)

8. The owner/operator shall report any non-compliance with parts 5 and/or 6 to the Director of the Compliance & Enforcement Division at the time that it is discovered. The submittal shall detail the corrective action taken and shall include the data showing the exceedance as well at the time of occurrence. (basis: Cumulative Increase, BACT)

9. The owner/operator shall remove S-23 from service within 14 days of the startup of S-30. (basis: offsets)

IX. RECOMMENDATION

Issue an Authority to Construct to Plains for the following:

S-30 Oil Water Separator: Make Highland Tank, Model R-HTC-GSH-S-J 5000, 500 GPM; Abated by A-30 Caron Absorption System: Make Siemens Vent-Scrub Model No. 200, Two Carbon Vessels in Series, 200 lb Carbon and 100 CFM Each Vessel.

_____ _____

Xuna Cai ***Date***
Air Quality Engineer

Application 24356, S-73 Change of Conditions
ENGINEERING EVALUATION REPORT
PLAINS PRODUCTS TERMINALS LLC.
PLANT NUMBER 17559
APPLICATION NUMBER 24356

BACKGROUND

Plains Products Terminals LLC. (Plains) operates a Bulk Terminal in Martinez, east of the Highway 680 Benicia Bridge close to the Tesoro wharf. Sometimes, when materials are heavy or viscous, part of the transfer operations includes heating the material in a direct-fired heater. The facility has requested to change the permit condition for this heater:

S-73 Direct Fired Heater, Natural Gas Fired, 19.95 MMBtu/hr

S-73 is subject to Permit Condition Number 13720. Part 2 of the condition currently specifies the NOx limit for the source is 20 ppmv @ 3% O2. Effective January 1, 2012, S-73 is subject to the 15% ppmv @ 3% O2 NOx limit in Regulation 9-7-307.3. Therefore, the facility requests to modify the NOx limit in the permit condition to be consistent with the rule's limit.

The facility replaced the burner at S-73 in 2008. After the replacement, there were four source tests performed and verified by the District's Source Test Section so far. All four test results indicate that the NOx emissions from S-73 are 12 ppmv @ 3% O2 on average, and all are below 15 ppmv @ 3% O2. Therefore, no physical change or change in the method of operation is needed to comply with the lower NOx limit.

EMISSION CALCULATIONS

There will be no increase in emissions as a result of this application.

CUMULATIVE EMISSIONS

There will be no increase in emissions as a result of this application.

TOXICS RISK SCREENING ANALYSIS

A toxics risk analysis is not required for this application since the emissions are not expected to increase as a result of this application per Regulation 2, Rule 5 New Source Review of Toxic Air Contaminants.

STATEMENT OF COMPLIANCE

S-73 is expected to continue to comply with all applicable requirements in Regulation 6, Rule 1 Particulate Matter and Visible Emissions, Regulation 9, Rule 1 Inorganic Gaseous Pollutants –

Sulfur Dioxide, and Regulation 9, Rule 7 Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters.

The application 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 fixed standards and objective measurements outlined in the Permit Handbook Chapter 2.1, and therefore, is not discretionary as defined by CEQA.

This project is not within 1000 feet of any school and therefore not subject to the public notice requirement of Regulation 2-1-412.

A toxics risk analysis is not required for this application as stated above.

This application will not trigger BACT, offsets, PSD, NSPS, or NESHAPS since there will be no increase in emissions as a result of this application.

PERMIT CONDITIONS

Permit Condition 13720 will be modified as shown below in underlined/strikeout format.

S-73, DIRECT FIRED HEATER

1. The Owner/Operator shall not exceed 90 million standard cubic feet (scf) of natural gas usage at S-73 in any consecutive 12-month period.[Basis: Cumulative Increase]

2. The Owner/Operator of S-73 shall not exceed 15~~20~~ ppmv of NOx concentrations @ 3% O2 as determined using District Source Test Method 13 A or B. [Basis: BACT; Reg. 9-7-307.3]

3. The Owner/Operator of S-73 shall not exceed 50 ppmv of CO concentrations @ 3% O2 as determined using District Source Test Method 6. [Basis: BACT]

4. The Owner/Operator of S-73 shall use natural gas exclusively. [Basis: BACT]

5. ~~Within 30 days of startup, t~~The Owner/Operator shall conduct a~~n initial~~ District approved source test~~, and~~ annually~~ thereafter~~, in order to determine compliance with parts 2, 3, ~~Regulation 9-7-301.1~~ and Regulation 9-7-307.3~~1.4~~. All source testing shall be performed in

accordance with the District's Manual of Procedures. The facility shall receive approval from the District's Source Test Manager for installation of test ports and source testing procedures. The results shall be delivered to the Director of Enforcement of the District no later than 30 days from the date of the source test. [Basis: Regulation 9, Rule 7]

6. The Owner/Operator shall use a non-resettable natural gas flow meter in order to demonstrate compliance with part #1. Natural gas usage shall be recorded in a District approved monthly log and retained for at least 5 years from the date of entry. This log shall be kept on site and made available to District staff upon request. [Basis: Regulation 2, Rule 1, Section 403]

7. Deleted. [Fuel Oil no longer used as fuel at S-73]

RECOMMENDATIONS

It is recommended to grand the change of permit condition to Plains for the following:

S-73 Oil Heater, Natural Gas Fired, 19.95 MMBtu/hr

By: _____ Date:_____

Xuna Cai

Air Quality Engineer

Application 24630, A-3 Vapor Bladder Tank Abatement System
ENGINEERING EVALUATION
PLAINS PRODUCTS TERMINALS
PLANT # 17559
APPLICATION # 24630

I. BACKGROUND

Plains Products Terminals has applied for an Authority to Construct/Permit to Operate for the following equipment:

A-3 Vapor Bladder Tank: 110,000 cubic feet capacity; abating S-1 through S-12, S-18, S-19, S-27, and S-28, Organic Liquid Storage Tanks.

Currently, 16 fixed roof storage tanks are equipped with vapor lines that are manifolded together, and the pressure inside the vapor lines is continuously monitored. The tanks have pressure relief devices at the top that are set to 2.0 inches of water column. Before the pressure at the vapor lines reaches 1.5 inches of water column, the thermal oxidizer, A-1, is set to startup as required in Permit Condition 1253, so that all vapors are collected and controlled by A-1 instead of being released at the pressure relief devices.

Plains is proposing to add a vapor bladder tank in between the tank vapor lines and the thermal oxidizer as an alternative operating scenario. The primary purpose of the bladder is to regulate unsteady vapor flow to a control device. The vapor bladder will be designed to expand at less than 1.5 inches of water column. As the tanks are either filled or heated from diurnal effects, the vapor will be vented to the bladder tank first causing it to expand.

Plains indicates that the bladder tank can help to resolve some historical compliance issues associated with A-1. Since the activation set point and the pressure relief settings on the tanks are relatively low, if an issue should occur with the oxidizer resulting in it shutting down, the pressure inside the vapor lines may exceed 1.5 inches of water column momentarily resulting in violation of the permit condition. The addition of a vapor bladder tank can provide additional time for the terminal personnel to fix and restart the thermal oxidizer before the pressure at the vapor lines reaches 1.5 inches of water column. In addition, it can also decrease the constant daily cycling on and off of the thermal oxidizer during summer months, which can decrease potential maintenance issues due to excessive wear and tear on the unit as a result of constant cycles. Plains also requests to have the flexibility to operate the storage tanks and the thermal oxidizer with or without the vapor bladder tank.

A-1 is also used to abate emissions from marine vessel loading operation. The addition of the vapor bladder tank in the vapor collection system for the fixed roof tank is not expected to affect the marine vessel loading operation.

II. EMISSION CALCULATIONS

Since the vapor bladder tank is an abatement device, the only expected emissions are from the fugitive components that will be installed as a result of this project. The average

emission factors in Table IV-1b in the Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Facilities (dated February 1999) will be used to estimate the organic emissions. Assuming 24 hour/day and 365 day/year of operation,

Component Type	Number of Components	Emission Factor for Gas Service (kg/hr/source)	Annual Emissions (lb/yr)
Valves	7	1.30E-05	1.76
Fittings (connectors and flanges)	10	4.20E-05	8.11
Others (including vents)	2	1.20E-04	4.64
		Total POC (lb/yr) =	14.51
		Total POC (ton/yr) =	0.007

III. PLANT CUMULATIVE INCREASE SINCE 4/5/91

	Current Ton/yr	New Ton/yr	New Total Tons/yr
POC =	0	0.007	0.007

IV. TOXIC SCREENING ANALYSIS

A Toxic Risk Screening Analysis was not required for this application since none of the toxic trigger levels were exceeded per Regulation 2-5. In the processing of storing petroleum products and organic liquids, benzene, while not the most prevalent Toxic Air Contaminant (TAC) present, is the TAC most likely to trigger risk screening because of the lower trigger level. The chronic toxic screening trigger level for benzene is 3.8 lb/yr. Assuming up to 1% of the overall POC emissions from this project may be benzene emission, the estimated benzene emissions are 0.15 lb/yr for this project and is less than the chronic trigger level.

V. BEST AVAILABLE CONTROL TECHNOLOGY

The project does not trigger BACT since the POC emissions are less than 10 pounds per highest day each per Regulation 2-1-301.

VI. OFFSETS

The facility is permitted to emit more than 35 tons of POC a year, and therefore, the facility is required to provide POC offset credits for this project at a 1.15 to 1.0 ratio.

Banking Certificate1258 will be used to provide the required POC offset credits in the amount of 0.008 TPY.

VII. STATEMENT OF COMPLIANCE

S-12, S-18, S-19, S-27, and S-28, Organic Liquid Storage Tanks. are subject to Regulation 8, Rule 5, Organic Compounds - Storage of Organic Liquid. Since A-3, Vapor Bladder Tank, is for regulating vapor flow and all vapor must be vented to A-1, Thermal Oxidizer, with at least 95% reduction efficiency, compliance with the requirements in Section 301 (approved emission control system) and 306.1 (abatement efficiency of at least 95%) is expected. The sources are also expected to continue to comply with all other applicable requirements in this rule.

This 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 emission factors in accordance with Permit Handbook Chapter 3.4.

This project is over 1,000 ft from the nearest public school and is therefore not subject to the public notification requirements of Regulation 2-1-412.

A toxic risk screening analysis is not required.

PSD, NSPS, and NESHAPS are not triggered.

VIII. CONDITIONS

S-1 through S-12, S-18 and S-19, Storage Tanks and A-1, Thermal Oxidizer, will continue to comply with Permit Condition # 1253. When operating with A-3, it will be subject to the follow permit conditions. The height limit and monitoring requirement in Part 1 is to ensure the operation will not exceed the design capacity of the bladder tank. The hydrocarbon concentration and monitoring requirement in Part 2 is to ensure that the bladder diaphragm is intact and has no leaks.

Permit Condition # 25463

1. The owner/operator of A-3 shall install a high-level vapor bladder tank alarm, monitor and record the vapor diaphragm height at A-3 on a continuous basis at all times except when A-3 is out of service. The alarm shall be triggered when the vapor diaphragm height reaches 50 feet. The owner/operator shall not allow the vapor diaphragm height of A-3 to exceed 55 feet. [Basis: Regulation 2-1-403]

2. The owner/operator of A-3 shall install a headspace hydrocarbon analyzer inside the roof main exhaust vent of A-3 and as close to the headspace above the diaphragm of the vapor bladder tank to the extent possible, monitor and record the hydrocarbon concentration on a continuous basis at all times except when A-3 is out of service. The owner/operator shall not allow the hydrocarbon concentration in the headspace above the diaphragm of the vapor bladder tank to exceed 3000 PPM, expressed as methane, averaged over one hour. [Basis: Regulation 2-1-403]

3. For the purposes of this permit condition, A-3 is defined as out of service when the hydrocarbon concentration in the vapor bladder tank is measured to be less than 10,000 ppm expressed as methane for at least four consecutive measurements performed at intervals no shorter than 15 minutes each. [Basis: Regulation 2-1-403]

4. To demonstrate compliance with above parts, the owner/operator shall maintain all records and reports on site for a minimum of 5 years. These records shall include but are not limited to:

   a. Monitoring record of the vapor diaphragm height at A-3.
   b. Monitoring record of the hydrocarbon concentration above the diaphragm at A-3.
   c. The sources abated by A-3.
   d. The time and date when A-3 is out of service.

   All records and data shall be retained and made available for inspection by the District upon request. [Basis: Regulation 2-1-403]

5. Within 30 days of startup of A-3, the owner/operator shall provide the permit engineer in the Bay Area Air Quality Management District's Engineering Division assigned to Plant 17559 a final count of all fugitive components installed, along with each installed component's unique and permanent identification number. Until such time a final count of all fugitive components installed is provided, the owner/operator has proposed to and has been permitted by the District under Application 24630 to install the following fugitive components: 7 valves, 10 fittings (connectors and flanges), and 2 other types of fugitive components (including vents).
   [Basis: Cumulative Increase; Offsets]

IX. RECOMMENDATION

Issue the Authority to Construct to Plains Product Terminals for the following equipment:

A-3 Vapor Bladder Tank: 110,000 cubic feet capacity; abating S-1 through S-12, S-18, S-19, S-27, and S-28, Organic Liquid Storage Tanks.

_____

Xuna Cai
Air Quality Engineer
Permit Evaluation Section
Engineering Division

Date: _____

Application 25907, S-30 Oil/Water Separator Throughput Increase
ENGINEERING EVALUATION
Plains Products Terminals LLC
Plant #17559
Application #25907

I. BACKGROUND

Plains Products Terminals, LLC. (Plains) is applying for throughput limit increase at an oil-water separator located at its Martinez terminal:

S-30 Oil Water Separator: Make Highland Tank, Model R-HTC-GSH-S-J 5000, 500 GPM; Abated by A-30 Caron Adsorption System: Make Siemens Vent-Scrub Model No. 200, Two Carbon Vessels in Series, 200 lb Carbon and 100 CFM Each Vessel.

The source was initially permitted under Application 23218 in 2011. The facility proposed to increase the throughput limit from 500,000 gallons to 650,000 gallons of wastewater per year. A flow meter is in place to keep track of the amount of total wastewater processed at S-30.

In addition, based on discussions with the staff in Enforcement, the use of photo-ionization detector (PID) is deemed inappropriate as monitoring equipment for oil water separators at gasoline bulk terminals because PID is not capable to detect the presence of ethane and/or propane. Therefore, the option of using PID in the current permit condition for S-30 will be removed. Plains will use a flame-ionization detector to monitor the breakthrough of the carbon adsorption system abating S-30.

According to the monitoring records during last three years, Plains determined that breakthrough occurs once every six months or longer, and requested to reduce the monitoring frequency from daily to monthly.

II. EMISSION CALCULATIONS

Annual Emissions:

Basis:
- An annual throughput of 650,000 gallons.
- An emission factor of 0.2 lb/1000 gal. This factor is based on EPA, AP-42, Chapter 5.1 Petroleum Refining, Table 5.1-2 for controlled oil-water separator. The applicable control technologies are covered separator and/or vapor recovery systems. Since S-30 is both covered and abated by a vapor recovery system, the controlled factor is used.
- Only POC emissions are expected.

Annual POC Emissions = (650,000 gal/yr) (0.2 lb POC/1000 gal) = 130 lb/yr = 0.065 ton/yr

Baseline Emissions:

S-30 was permitted with an annual throughput limit of 500,000 gallons in Application 23218, and has been fully offset by the facility. Per Regulation 2-6-605.4, the baseline throughput and baseline emission rate shall be based on the levels allowed by the permit condition.

Baseline Annual POC Emissions = (500,000 gal/yr) (0.2 lb POC/1000 gal) = 100 lb/yr = 0.050 ton/yr

Annual POC Emission Increase = (0.065 – 0.050) ton/yr = 0.015 ton/yr

Maximum Daily Emissions:

Daily emissions are calculated to establish whether a source triggers the requirement for BACT (10 lb/highest day total source emissions for any class of pollutants). A full 24-hour day and the maximum capacity of 500 GPM will be assumed since no daily limits are imposed on the operation.

Max. Daily POC Emissions = (500 gal/min) (60 min/hr) (24 hr/day) (0.2 lb/1000 gal) = 144 lb/day

III. PLANT CUMULATIVE INCREASE SINCE 4/5/1991

POC = 0 (existing, post 1991) + 0.015 tpy (application increase) = 0.015 tpy

IV. OFFSETS

Offsets are required from the facility per Regulation 2-2-302 because the facility has been permitted to emit more than 35 tons POC per year. Emission offsets shall be provided for the POC emissions (0.015 TPY) at a 1.15 to 1.0 ratio. The facility has submitted the Banking Certificate 1350, but after the certificate was used in Application 24630, the remaining offset credits have been transferred to Banking Certificate 1383 with 0.673 ton/yr of POC credits. 0.017 TPY POC credits will be subtracted from the Banking Certificate 1383.

V. TOXICS SCREENING ANALYSIS

Wastewater processed at S-30 can contain various amounts of gasoline and other petroleum products. The worse case scenario, which assumes that the vapor has similar compositions as gasoline vapor, is used to estimate the maximum toxic air contaminant emissions. The emissions of potential toxic air contaminants (TAC) from this operation are shown below:

TAC	Weight % in Vapor *	*Annual Emission (lb/yr)*	*Chronic Trigger Level (lb/yr)*	Acute Trigger *Level (lb/hr)*	*Trigger levels exceeded?*
Benzene	***0.4***	***0.52***	***3.8***	***2.9***	***No***
Ethylbenzene	***0.1***	***0.13***	***43***	***n/a***	No
Toluene	***1.1***	***1.43***	***12,000***	***82***	No
Xylenes	***0.4***	***0.52***	***27,000***	***49***	No
n-Hexane	***1.4***	***1.82***	***270,000***	***n/a***	No
Naphthalene	***0.00027***	***0.00035***	***3.2***	***n/a***	No

**Source: USEPA, Gasoline Distribution Industry (Stage I) - Background Information for Proposed Standards. Office of Air Quality Planning and Standards, Research Triangle Park, NC. 27711. EPA-453/R-94-002a, Table 3-2. January 1994. In addition, Estimated Naphthalene Weight % in Gasoline Vapor per USEPA - National Emission Standards for Hazardous Air Pollutants for Source Categories: Gasoline Distribution Bulk Terminals, Bulk Plants Pipeline Facilities, and Gasoline Dispensing Facilities [Federal Register: November 9, 2006 (Volume 71, Number 217).*

Since the estimated TAC emissions are less than the trigger levels of Regulation 2-5, a Health Risk Screening Analysis is not required

VI. BEST AVAILABLE CONTROL TECHNOLOGY

Per Regulation 2-2-301, S-30 triggers BACT because emissions of POC are in excess of 10.0 pound per highest day (144 lb POC/day). According to the District's BACT/TBACT Workbook, Document # 177.2.1 dated October 4, 1991, the BACT requirement for oil water separators with 250 GPM or more capacity is vapor-tight fixed cover and vented to vapor recovery system with combined collection and destruction efficiency of 95%. The proposed oil-water separator is equipped with vapor-tight fixed cover and abated by a vapor recovery system consisting of two

carbon vessels in series. The carbon system is a typical control technology and is expected to achieve a destruction efficiency greater than 95%.

Source:	***Water Treating - Oil/Water Separator***	Revision:	***1***
		Document #:	***177.2.1***
Class:	***≥250 Gallons/min***	Date:	***10/04/91***

POLLUTANT	BACT 1. Technologically Feasible/ Cost Effective 2. Achieved in Practice	TYPICAL TECHNOLOGY
POC	1. *n/d* 2. *Vapor-tight fixed cover and vented to vapor recovery system w/ combined collection and destruction/recovery efficiency of ≥95%*[a]	1. *n/d* 2. *BAAQMD Approved Design and Operation*[a]

References

a. BAAQMD

VII. STATEMENT OF COMPLIANCE

The owner/operator of S-30 is subject to and expected to comply with Regulation 8-8: Wastewater Collection and Separation Systems. The capacity of S-30 is 500 GPM, and therefore S-30 is subject to the requirements in Section 302. It complies with Section 302.3 because it is equipped with a vapor-tight fixed cover with a carbon adsorption system which is expected to have a combined collection and destruction efficiency of at least 95% by weight. The recording keeping requirements in Section 503 will be included in the permit condition.

CEQA: This application is considered to be ministerial under the District's 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 emission factors in accordance with Permit Handbook Chapter (3.3).

Watersbill: This project is greater than 1,000 ft from the nearest public school and therefore is not subject to the public notification requirements of Regulation 2-1-412.

New Source Performance Standards (NSPS):
S-30 is not subject to 40 CFR 60 Subpart QQQ: Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems because it is not located at a refinery.

National Emission Standards for Hazardous Air Pollutants (NESHAP):
S-30 is not subject to NESHAPS 40 CFR 63 Subpart VV: National Emission Standards for Hazardous Air Pollutants for Oil-Water Separators and Organic-Water Separators per Section 63.1040. The facility is not subject to another subpart of 40 CFR parts 60, 61, or 63 referencing the use of Subpart VV for oil-water separator.

Prevention of Significant Deterioration (PSD):
The emission increase resulted from this project is expected to be less than 1 TPY of any criteria pollutants. Since they are far below the PSD thresholds, the project is not subject to PSD review.

VIII. PERMIT CONDITIONS

S-30 is subject to Permit Condition 24966 which will be modified as shown in the underline/strikeout format below:

1. The owner/operator of S-30 shall not exceed wastewater throughput limits of 6550~~50~~0,000 gallons during any consecutive twelve-month period. (Basis: Cumulative Increase)

2. The owner/operator shall vent Source S-30 at all times to Abatement Device A-30, two (200 lb minimum capacity) activated carbon vessels arranged in series. Influent vapor flow shall not exceed 100 scfm. (basis: Regulation 8-40-302; BACT)

3. The owner/operator of S-30 shall monitor with a ~~photo-ionization detector (PID),~~ flame-ionization detector (FID), or other method approved in writing by the Air Pollution Control Officer at the following locations:

a. At the inlet to the second to last carbon vessel in series.
b. At the inlet to the last carbon vessel in series.
c. At the outlet of the carbon vessel that is last in series prior to venting to the atmosphere.

When using an FID to monitor breakthrough, readings may be taken with and without a carbon filter tip fitted on the FID probe. Concentrations measured with the carbon filter tip in place shall be considered methane for the purposes of these permit conditions. (basis: Cumulative Increase, BACT)

4. The owner/operator shall record these monitor readings in a monitoring log at the time they are taken. The monitoring results shall be used to estimate the frequency of carbon change-out necessary to maintain compliance with parts 5 and 6, and shall be conducted on a monthly~~daily~~ basis. Any monitor reading shall not be taken more than 40 days from the previous reading. The owner/operator of this source may propose for District review, based on actual measurements taken at the site during operation of the source, that the monitoring schedule be changed based on the decline in organic emissions and/or the demonstrated breakthrough rates of the carbon vessels. Written approval by the District's Engineering Division must be received by the owner/operator prior to a change to the monitoring schedule. (basis: Cumulative Increase, BACT)

5. The owner/operator shall change out the second to last carbon vessel with unspent carbon upon breakthrough, defined as the detection at its outlet of the higher of the following:

a. 10 % of the inlet stream concentration to the carbon vessel.
b. 10 ppmv or greater (measured as C1).

(basis: Cumulative Increase, BACT)

6. The owner/operator shall change out the last carbon vessel with unspent carbon upon detection at its outlet of 10 ppmv or greater (measured as C1). (basis: Cumulative Increase, BACT)

7. The owner/operator of S-30 shall maintain the following records for each month of operation of the source:

a. Quantities of wastewater processed.
b. Monthly throughput shall be totaled for each consecutive twelve-month period.
c. Each monitor reading or analysis result for the day of operation they are taken.
d. The dates and the number of carbon beds removed from service.

All records shall be retained on-site for five years, from the date of entry, and made available for inspection by District staff upon request. These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable District Regulations. (Basis: Cumulative Increase)

8. The owner/operator shall report any non-compliance with parts 5 and/or 6 to the Director of the Compliance & Enforcement Division at the time that it is discovered. The submittal shall detail the corrective action taken and shall include the data showing the exceedance as well at the time of occurrence. (basis: Cumulative Increase, BACT)

9. Deleted. (Start-up condition. S-23 was removed from service on 10/10/2011). (basis: offsets)

IX. RECOMMENDATION

Grant the change of permit condition to Plains for the following:

S-30 Oil Water Separator: Make Highland Tank, Model R-HTC-GSH-S-J 5000, 500 GPM; Abated by A-30 Caron Adsorption System: Make Siemens Vent-Scrub Model No. 200, Two Carbon Vessels in Series, 200 lb Carbon and 100 CFM Each Vessel.

_____ _____

Xuna Cai ***Date***
Air Quality Engineer