

Synthetic Minor Operating Permit Application Evaluation Report
BP West Coast Products, LLC.
Application #1925 - Site #13637

Background:

BP West Coast Products, LLC (“BP”), Plant # 13637 formerly known as ARCO, located at 1306 Canal Blvd., Richmond, California, is a bulk terminal plant. The company originally submitted a Title V permit application. After an internal review of total emissions, BP decided that this facility qualifies for a Synthetic Minor permit based on the facility’s potential to emit.

Site # 13637 is subject to Regulation 2, Rule 6 because their emissions of VOCs exceeded 50 tons per year. The sources identified at this plant include:

Permitted Sources

- S-1 Truck Loading Rack, submerged fill or bottom loading, 6 gasoline, 1 transmix, 1 ethanol, 6 diesel, 1 diesel additive loading arms, 1 Jet Fuel A loading arm, abated by A-1 John Zink Adsorption Unit.
- S-4 Storage Tank # 6, Fixed Roof, 3,234,000 gallons capacity.
- S-5 Storage Tank # 1, Internal Floating Roof, 840,000 gallons capacity.
- S-6 Storage Tank # 8, External Floating Roof, 4,150,000 gallons capacity.
- S-7 Storage Tank # 2, Internal Floating Roof, 840,000 gallons capacity.
- S-8 Storage Tank # 3, Internal Floating Roof, 840,000 gallons capacity.
- S-9 Storage Tank # 4, Internal Floating Roof, 840,000 gallons capacity.
- S-10 Storage Tank # 9, External Floating Roof, 2,788,000 gallons capacity.
- S-21 Storage Tank # 21, External Floating Roof, 835,000 gallons capacity.
- S-26 Storage Tank # 26, External Floating Roof, 311,000 gallons capacity.
- S-27 Storage Tank # 27, Internal Floating Roof, 317,000 gallons capacity.
- S-28 Storage Tank # 28, Internal Floating Roof, 317,000 gallons capacity.
- S-29 Storage Tank # 29, External Floating Roof, 311,000 gallons capacity.
- S-30 Storage Tank # 30, External Floating Roof, 312,000 gallons capacity.
- S-51 Storage Tank # 51, External Floating Roof, 836,000 gallons capacity.
- S-53 Storage Tank # 53, Oil/Water, Internal Floating Roof, 254,000 gallons capacity.
- S-54 Storage Tank # 54, Oil/Water, Internal Floating Roof, 42,000 gallons capacity.
- S-58 Storage Tank # 58, Jet Fuel/Ethanol, Internal Floating Roof, 2,268,000 gallons capacity.
- S-59 Oil/Water Separator, API, 29,000 gallons capacity.
- S-77 Marine Loading/Offloading Facility, consist of 5 loading/offloading arms.
- S-80 Diesel Engine, Onan Model 125 OGEA27121, Emergency Standby, 207 bhp.

Other exempt Sources or Activities

- S-11 Storage Tank # 10, exempt under Regulation 2-1-123.3.2.
- S-12 Storage Tank # 5, exempt under Regulation 2-1-123.3.2.
- S-13 Storage Tank # 11, exempt under Regulation 2-1-123.3.2.
- S-14 Storage Tank # 14, exempt under Regulation 2-1-123.3.2.
- S-15 Storage Tank # 15, exempt under Regulation 2-1-123.3.2.
- S-16 Storage Tank # 16, exempt under Regulation 2-1-123.3.2.
- S-18 Storage Tank # 18, exempt under Regulation 2-1-123.3.2.
- S-22 Storage Tank # 22, exempt under Regulation 2-1-123.3.2.

- S-23 Storage Tank # 23, exempt under Regulation 2-1-123.3.2
- S-24 Storage Tank # 24, exempt under Regulation 2-1-123.3.2
- S-25 Storage Tank # 25, exempt under Regulation 2-1-123.3.2
- S-31 Storage Tank # 31, exempt under Regulation 2-1-123.3.2
- S-33 Storage Tank # 33, exempt under Regulation 2-1-123.3.2
- S-34 Storage Tank # 34, exempt under Regulation 2-1-123.3.2
- S-36 Storage Tank # 36, exempt under Regulation 2-1-123.3.2
- S-37 Storage Tank # 37, exempt under Regulation 2-1-123.3.2
- S-38 Storage Tank # 38, exempt under Regulation 2-1-123.3.2
- S-39 Storage Tank # 39, exempt under Regulation 2-1-123.3.2
- S-44 Storage Tank # 44, exempt under Regulation 2-1-123.3.2
- S-45 Storage Tank # 45, exempt under Regulation 2-1-123.3.2
- S-46 Storage Tank # 46, exempt under Regulation 2-1-123.3.2
- S-47 Storage Tank # 47, exempt under Regulation 2-1-123.3.2
- S-48 Storage Tank # 48, exempt under Regulation 2-1-123.3.2
- S-49 Storage Tank # 49, exempt under Regulation 2-1-123.3.2
- S-64 Storage Tank # 35, exempt under Regulation 2-1-123.3.2
- S-73 Storage Tank # 55, exempt under Regulation 2-1-123.3.2
- S-74 Storage Tank # 56, exempt under Regulation 2-1-123.3.2
- S-75 Storage Tank # 57, exempt under Regulation 2-1-123.3.2
- S-76 Storage Tank # 32, exempt under Regulation 2-1-123.3.2
- S-81 Diesel Engine, Onan Model 20 DGAB388883, Emergency Standby, 33 bhp, exempt under Regulation 2-1-114.2.1.

Railcar offloading (ethanol & additives), exempt under Regulation 2-1-103
Truck Refueling Stations (diesel), exempt under Regulation 2-1-103
Underground Storage Tank Loading (pumpback), exempt under Regulation 2-1-103
Vapor Knockout Vessels, exempt under Regulation 2-1-123.1
Ground Water Remediation, exempt under Regulation 1-110.6
Motor Vehicles, exempt under Regulation 2-1-113.3
Provers, exempt under Regulation 2-1-105
All Portable Equipment, exempt under Regulation 2-1-105
Laboratory Facilities, exempt under Regulation 2-1-113.2.12 & 2-1-126.2

Emission Limits Strategy and emission calculation

To obtain a synthetic minor permit, a facility must have federally enforceable emission limits that keep the potential to emit below 95 tons per year of any regulated air pollutant, below 9 tons per year of any single HAP, and below 23 tons per year of any combination of HAPs.

The sources of this facility emit precursor organic compounds and hazardous air pollutant (HAP) such as MTBE from gasoline. BP is eliminating MTBE in gasoline and starting ethanol blending gasoline in Fall 2002. The annual throughput limits and the emission limits will be imposed on each source or group of sources pursuant to practically enforceable permit conditions, based on the applicant's request.

EPA has stated via a memo from John Seitz entitled "Guidance on Limiting Potential to Emit" dated June 13, 1989, that operational or throughput limits are required in addition to emission limitations. However, some exceptions have been made.

In the memo dated February 24, 1992, entitled "Use of Long Term Rolling Averages to Limit Potential to Emit" from John Rasnic, EPA has stated that long term average throughputs are acceptable for nine source categories. BP qualifies for the use of long term rolling averages to limit potential to emit under category number 7 for "plants where there may be variations in throughput due to unpredictable orders or contracts". BP is a bulk loading terminal and product transfer has historically been based on unpredictable orders or contracts. When emission limits are used, the facility must calculate the emissions on a rolling 12-month average.

The District is imposing a twelve month throughput limitation on each source or group of sources. BP is required to keep a record of daily throughput and summarize the records on a monthly and yearly basis. Using a rolling average that never exceeds the annual throughput limit is an acceptable approach in this case for the facility with unpredictable custom contracts.

Truck Loading Rack, S-1; abated by John Zink Adsorption Unit, A-1.

BP will install a flow meter, at the District's request, at the outlet of the John Zink Adsorption unit as a means to demonstrate compliance with the emission limits of Regulation 8, Rule 33 – Gasoline Bulk Terminal and Gasoline Delivery Vehicles. With the new flow meter and the measured throughput rate, an emission rate can be determined. The truck loading rack is also required to keep a record of throughput daily, summarized on a monthly and yearly basis. Each sum of twelve months of operation will not be allowed to exceed the rolling annual throughput limit. This is an acceptable approach in this case for the facility with unpredictable custom contracts.

The existing throughput limit imposed in existing condition # 3954 will be used for S-1. The throughput limit is the lesser of the following:

- 247,000,000 gallons of gasoline, 34,944,000 gallons of ethanol, and 624,000 gallons of transmix per 12 month period, or
- CARB certified throughput limit

Yearly emissions:

$$\text{Gasoline \& Ethanol \& Transmix} = 282,568,000 \text{ gal/yr} \times 0.02 \text{ lb/1000 gal}^1 = 5651 \text{ lb/yr or } 2.826 \text{ tpy}$$

¹ Loading emission factor = 0.02 lb/1000 gal per BACT.

Diesel & Jet Fuels = 90,000,000 gal/yr X 0.0004 lb/1000 gal² = 36 lb/yr or 0.018 tpy
² AP-42, Loading losses using AP-42, Chapter 5 equation 1; AP-42 assumes a collection efficiency of 90% and 95% destruction efficiency for vapor tight trucks.

Jet/Diesel Storage:

S-4: Fixed Roof Tank

S-11, S-13, S-14, S-64 - External Floating Roof Tanks

S-12, S-15, S-16, S-22, S-23, S-24, S-25, S-31, S-34, S-36, S-37, S-73, S-74, S-75, S-76 -

Exempted under Regulation 2-1-123.3.2

The POC emissions from these tanks are based on AP-42 Tank 4.0 program. BP accepted total throughput of 625,000,000 gallons of diesel and jet fuels per consecutive 12 months. The total estimated POC emissions are 1.711 tpy. See attached spreadsheets for detailed calculations.

Gasoline Storage:

S-6, S-10, S-21, S-29, S-30, S-51 - External Floating Roof Tanks

S-27, S-28 - Internal Floating Roof Tanks.

The POC emissions from these tanks are based on AP-42 Tank 4.0 program. BP accepted total throughput of 1,683,500,000 gallons of gasoline per consecutive 12 months after MTBE is phased out in 2002. The total estimated POC emissions are 19.73 tpy. See attached spreadsheets for detailed calculations.

The POC emissions from out of service tanks are based on the proposed studies prepared by Robert L. Ferry from The TGB Partnership for American Petroleum Institute and will be abated by an abatement device with a minimum of 90 wt% control efficiency as required by District's Regulation 8-5. Each operation will be recorded and the calculation is based on the out of service emissions, which include emptying and degassing, tank cleaning and refilling emissions, as indicated in the following equation:

Emptying and Degassing Emissions (pound) = $H(\pi D^2/4)(M_v P_v/RT)(\text{control efficiency})$

Where:

D= diameter of tank, ft

H = height of vapor space, ft

V = vapor pressure of liquid, psia

M_v=molecular weight, lb/lb-mole

R = 10.731 psia cu. ft./lb-mole Rankine

T = Temperature, Rankine (⁰F+460)

Control efficiency = 90% is required = (1-0.9)

Cleaning Emissions (pound) = $d(\pi D^2/4)W_1(7.48 \text{ gallons/ } 1 \text{ cu ft})(\text{control efficiency})$

Where:

d = depth of stock liquid evaporated during the cleaning operation, ft

D= diameter of tank, ft

W₁ = stock liquid density, lb/gal

Control efficiency = 90% is required = (1-0.9)

Refilling Emissions (pound) = $H_v(\pi D^2/4)(M_v P_v/RT)(\text{control efficiency})$

Where:

D= diameter of tank, ft

H_v = height of the floating roof above the tank bottom, ft

V = vapor pressure of liquid, psia

Mv=molecular weight, lb/lb-mole
R = 10.731 psia cu. ft./lb-mole Rankine
T = Temperature, Rankine (°F+460)
Control efficiency = 90% is required = (1-0.9)

Additive and Lube Oil:

S-18, S-33, S-41, S-42, S-45, S-46, S-47, S-48, S-49, S-74 and S-76 - exempt under Regulation 2-1-123.3.2.

The POC emissions from these tanks are based on AP-42 Tank 4.0 program. BP accepted total throughput of 243,000 gallons of additives and lube oils per consecutive 12 months. The total estimated POC emissions are 0.01 tpy . See attached spreadsheets for detailed calculations.

Transmix, Oily Water and Slop Oil:

S-26 - External Floating Roof Tank

S-53 and S-54 -External and Internal Floating Roof Tanks.

The POC emissions from these tanks are based on AP-42 Tank 4.0 program. BP accepted total throughput of 624,000 gallons of Transmix and its associated emissions are 1.65 tpy. The Oily water and slop oil throughput is 27,375,000 gallons per consecutive 12 months and its associated emissions are 0.8 tpy. The total estimated POC emissions are 2.45 tpy. See attached spreadsheets for detailed calculations.

Ethanol:

S-58 - Internal Floating Roof Tank.

The existing throughput limit imposed in existing condition # 5995 will be used for S-58.
Ethanol at 34,944,000 gal/yr will emit 343.5 lbs VOC/yr.
Jet Fuel A at 34,944,000 gal/yr will emit 113 lbs VOC/yr

S-59 - Oil/Water Separator:

The POC emissions from this process are based on emission factors from AP-42, Table 5.1-2, 5th Edition. BP accepted total throughput limit of 30,000,000 gallons of waste water per consecutive 12 months. The total estimated emissions are as followed:

30,000,000 gal/yr X 0.2 lb/1000 gal = 6000 lb/yr or 3.0 tpy POC

Again BP is required to keep a record of daily throughput and summarize the records on a monthly and yearly basis.

S-77 – Marine Loading/Offloading Facility.

The existing throughput limit imposed in existing condition # 17873 will be used for S-77.
Diesel = 306,600,000 gal/yr X 1 bbl/42 gal X 2 lb/1000 bbl³ loaded = 14,600 lb/yr or 7.3 tpy.
³Loading emission factor = 2 lb/1000 gal per Regulation 8-44.

S-80 and S-81 – Emergency Standby Diesel Engines.

According to the John Seitz's memorandum dated January 25, 1995, an EPA's guidance for "emergency generator", 500 hours is an appropriate default assumption for estimating the number of hours that an emergency generator could be expected to operate under worst-case condition. Therefore, the potential to emit for S-80 and S-81 are based on 500 hours per year. Emissions consist primarily of carbon monoxide and nitrogen oxides. Other criteria pollutants, and hazardous air pollutants, are also emitted, but at much lower levels. Emissions occur only during emergency situations, and for a very short time to perform maintenance checks and operator training.

Emissions from engine is based on AP-42 emission factors- Table 3.3-1 for uncontrolled diesel industrial engine

S-80 emissions:

POC: $(0.35 \text{ lb/MMbtu})(1.58 \text{ MMbtu/hr})(500 \text{ hr/yr}) = 277 \text{ lb/yr}$

NOx: $(4.41 \text{ lb/MMbtu})(1.58 \text{ MMbtu/hr})(500 \text{ hr/yr}) = 3,484 \text{ lb/yr}$

CO: $(0.95 \text{ lb/MMbtu})(1.58 \text{ MMbtu/hr})(500 \text{ hr/yr}) = 751 \text{ lb/yr}$

PM10: $(0.31 \text{ lb/MMbtu})(1.58 \text{ MMbtu/hr})(500 \text{ hr/yr}) = 245 \text{ lb/yr}$

SO2: $(0.29 \text{ lb/MMbtu})(1.58 \text{ MMbtu/hr})(500 \text{ hr/yr}) = 229 \text{ lb/yr}$

S-81 emissions:

POC: $(0.35 \text{ lb/MMbtu})(0.25 \text{ MMbtu/hr})(500 \text{ hr/yr}) = 44 \text{ lb/yr}$

NOx: $(4.41 \text{ lb/MMbtu})(0.25 \text{ MMbtu/hr})(500 \text{ hr/yr}) = 551 \text{ lb/yr}$

CO: $(0.95 \text{ lb/MMbtu})(0.25 \text{ MMbtu/hr})(500 \text{ hr/yr}) = 119 \text{ lb/yr}$

PM10: $(0.31 \text{ lb/MMbtu})(0.25 \text{ MMbtu/hr})(500 \text{ hr/yr}) = 39 \text{ lb/yr}$

SO2: $(0.29 \text{ lb/MMbtu})(0.25 \text{ MMbtu/hr})(500 \text{ hr/yr}) = 36 \text{ lb/yr}$

The NOx, POC, CO, PM10 and SO2 emissions from the diesel emergency engines are insignificant; therefore, sources S-80 and S-81 do not require any continuous emission monitors. However, source S-80 was required to install a non-resettable meter that measures and records the hours of operation for the engine or a non-resettable fuel usage meter.

Truck Refueling Stations (diesel), exempt under Regulation 2-1-103.

The POC emissions from this operation are based on AP-42, Loading losses using AP-42, Chapter 5, equation 1. BP accepted a total throughput limit of 219,000 gallons of diesel per consecutive 12 months. The total estimated POC emissions are 0.003 tpy.

Underground Storage Tank Loading (pumpback-Gasoline), exempt under Regulation 2-1-103.

The POC emissions from this operation are based on AP-42, Loading losses using AP-42, Chapter 5, equation 1. BP accepted a total throughput limit of 1,684,000 gallons of gasoline per consecutive 12 months. The total estimated POC emissions are 0.027 tpy.

Fugitive emissions (valves, flanges, pumps, pipe fittings, etc.)

The total estimated POC emissions are 2.91 tpy for gasoline and diesel services based on AP-42 emission factors. The number of valves, flanges, etc., are listed below:

Component	Service	Numbers
Connectors	HC gas/vapor	800
	Light liquid	2731
Valves	HC gas/vapor	152
	Light liquid	669
Loading arms valves Load Rack only	HC gas/vapor	15
	Light liquid	7
Open-ended lines	Heavy liquid	8
	HC gas/vapor	0
Pump seals	Light liquid	3
	HC gas/vapor	0
Drains (incl. Sumps)	Light liquid	17
	HC gas/vapor	0
Others	HC gas/vapor	28
	Light liquid	107

Note: Heavy liquid components are not currently required to be monitored; thus no total count available.

The Total POC summary for all operations

Source	Description	POC emissions (ton per year)
S-1	Truck Loading Rack	2.844
S-4,11,12,13,14,15	Jet/Diesel Storage Tanks	1.711
S-16,22,23,31,34,36,37,64,74,75,76,58	Gasoline Storage Tanks	19.73
S-6,10, 21	Gasoline Storage Tanks	19.73
S-24,25,27,28,29,30,51	Gasoline Storage Tanks	19.73
S-18,33,41,42,45,46	Additives and Lube Oil Storage Tanks	0.011
S-47,48,49,74,76	Additives and Lube Oil Storage Tanks	0.011
S-26,53,54	Transmix, Slop Oil Storage Tank	2.45
S-58	Ethanol Storage Tank	0.23
S-59	Oil/Water Separator	3
S-77	Marine Loading/Offloading Facility	7.3
S-80	Emergency Standby Engine	0.14
S-81	Emergency Standby Engine	0.022
	Tank Degassing	1.0
	Truck Refueling Stations (diesel)	0.003
	Underground Storage Tank (pumpback-Gasoline)	0.027
	Fugitive emissions	<u>2.91</u>
Total		42.378

The Total HAP summary for all operations:

The HAP emissions from storage tanks are based on the following gasoline profile:

HAP	Liquid weight %	Vapor Weight %
Benzene	1.608	0.575
Toluene	7.212	0.5607
E.Benzene	1.605	0.0413
Xylene	7.17	0.2200
n-Hexane	1.0	0.4460
1,2,4-TMB	2.5	0.0122
224 Trimethylpentane	0.7	0.0036
Cyclohexane	0.24	0.0679
Naphalene	0.444	0.0002
MTBE	15	11.2034

This vapor profile is a conservative gasoline speciation from EPA Section 313 Toxic Release Inventory Guidance Document (EPA-745-B-00-002). Both Raoult's Law and Antinone's equation were used to estimate vapor weight fraction of individual hazardous air pollutants from known liquid weight fractions of petroleum products. The benzene vapor weight fraction of 0.575% was calculated for gasoline storage tanks and truck loading rack.

BP receives batches of gasoline from various local refiners; thus, the actual HAP content is expected to vary slightly. Therefore, The District will impose a new requirement or condition that requires annual test for HAPs in gasoline. (See condition).

BP has assumed a conservative 15 vol % of MTBE in the gasoline; thus, the highest HAP emission is 8.0 tpy of MTBE. Due to the legislation that Governor Davis signed last year, the State of California will eliminate MTBE from gasoline by 2002. BP is eliminating the loading of MTBE in fall 2002 so that it will comply with this legislation. As the result, the MTBE emission will not be calculated in the HAP summary table.

HAPs	S-1 lbs/yr	Tanks lbs/yr	Marine lbs/yr	Fugitive lbs/yr	total lbs/yr	total tons/yr
Benzene	33	256	22	133	433	0.217
Toluene	32	249	426	429	1138	0.569
E.Benzene	2	18	70	89	179	0.090
Xylene	13	98	1413	401	1911	0.956
n-Hexane	26	198	12	90	325	0.163
1,2,4-TMB	1	5	743	139	887	0.444
224 Trimethylpentane	0.2	1.6	7	37	46	0.023
Cyclohexane	3	30	0	18	51	0.026
Naphthalene	0.1	41	5	26	71	0.036
Total					5,041	2.524

Statement of Compliance:

This facility is in compliance with the necessary requirements in Regulation 2, Rule 6 to obtain a synthetic minor permit. The facility has voluntarily accepted federally enforceable permit conditions including emission limits that will keep its annual emissions within 95 tons per year of

any regulated air pollutant, 9 tons of any hazardous air pollutant, and 23 tons of any combination of hazardous air pollutants.

BP, Site #16337 has a synthetic minor operating permit. This operating permit covers all sources existing at this facility as of permit issuance. The sources are listed above.

Permit Conditions

Individual Sources Conditions (to be archived): The following permit conditions shall be archived in lieu of a single condition for all sources.

Condition 3954	S-1
Condition 17347	S-4, 18
Condition 17348	S-5, 7, 8, 9
Condition 10377	S-6, 10, 11, 29, 30, 51
Condition 4214	S-10
Condition 1958	S-24
Condition 3142	S-27, 28
Condition 4917	S-51
Condition 5995	S-58
Condition 1408	S-59
Condition 17484	S-77
Condition 19535	S-80

Synthetic Minor Condition #19942:

BP, LLC, Plant #13637, has a synthetic minor operating permit. This operating permit covers all sources at the facility.

This permit condition establishes the permit terms that ensure this plant is classified as a Synthetic Minor Facility under District Regulation 2, Rule 6 - Major Facility Review and ensure it is not subject to the permitting requirements of Title V of the Federal Clean Air Act as amended in 1990 and 40 CFR Part 70. All applications submitted by the applicant and all modifications to the plant's equipment after issuance of the synthetic minor permit must be evaluated to ensure that the facility cannot exceed the synthetic minor general limits below, and that sufficient monitoring, recordkeeping, and reporting requirements are imposed to ensure enforceability of the limits.

Any revision to a condition establishing this plant's status as a Synthetic Minor Facility or any new permit term that would limit emissions of a new or modified source for the purpose of maintaining the facility as a Synthetic Minor must undergo the procedures specified by Rule 2-6, Section 423. The basis for the synthetic minor conditions is an emission limit for regulated air pollutants of less than 95 tons per year, an emission limit for a single hazardous air pollutant of less than 9 tons per year, and an emission limit for a combination of hazardous air pollutants of less than 23 tons per year.

Asterisks denote permit conditions that are part of this permit but do not contribute to establishing the synthetic minor limits. The facility must comply with all conditions, regardless of asterisks. The following conditions do not negate the applicability of any District, state or federal requirements.

1. Annual emissions of volatile organic compounds (VOCs) from all sources combined (including any truck loading, storage tanks, oil/water separator and marine loading/offloading operations) shall be no greater than 95 tons per any consecutive twelve-month period. (Basis: Synthetic Minor)
2. Annual emissions of any single hazardous air pollutant (HAP) from all sources combined (including any truck loading, storage tanks, oil/water separator and marine loading/offloading operations) shall be no greater than 9 tons per any consecutive twelve-month period. (Basis: Synthetic Minor)
3. Annual emissions of any combination of HAPs from all sources combined (including any truck loading, storage tank, Oil/Water Separator and Marine loading/Offloading operations) shall be no greater than 23 tons per year. (Basis: Synthetic Minor)
4. The total throughput at each source listed below shall not exceed the gallons indicated in any rolling 12 consecutive month period, as indicated: (Basis: Synthetic Minor)

<u>Source Number</u>	<u>Processing - Throughput Limit (gallons/rolling 12 consecutive months)</u>	
S-1	247,000,00	gasoline
	34,944,000	ethanol
	90,000,000	diesel and Jet A
	624,000	transmix
S-4, S-11 to S-16, S-22 to S-25, S-31, S-34, S-36, S-37, S-64 and S-73 to S-76	625,000,000	diesel and Jet A
S-6, S-10, S-21, S-27 to S-30, and S-51	1,683,500,000	gasoline
S-18, S-33, S-41, S-42, S-45 to S-49, S-74, S-76	243,000	additive & lube oil
S-26	624,000	transmix
S-53, S-54	27,375,000	oily water and slop
oil		
S-58	34,944,000	ethanol
	34,944,000	Jet A
S-59	30,000,000	waste water
S-77	306,600,000	loading of diesel
and		Jet A
Truck Refueling Stations (diesel)	219,000	diesel
Underground Tank (pumpback-Gasoline)	1,684,000	gasoline

5. District approved logs shall be maintained for all sources. The logs shall be retained for at least five years and be available for review during normal business hours by the District's representatives, and shall include the following information: (Basis: Recordkeeping, Synthetic Minor)
 - a. daily records of the quantity of each material processed at S-1;
 - b. monthly records of the quantity of each material processed at each source or group of sources other than S-1;
 - c. the emission factors and the weight percents of VOC and individual HAPs in each material or other District approved recording methods that provide sufficient information to calculate VOC and HAP emissions;

6. A monthly summary of VOC, individual HAP and combined HAP usages and emission calculations shall be prepared within twenty business days after the end of each calendar month. BP shall use AP-42 methods, EPA's tank program, and emission factors specified by District's regulations. (Basis: Synthetic Minor)
7. The year-to-date total emissions of VOC, each individual HAP and combined HAPs shall be derived every month by summing the totals for the previous twelve months. The summaries shall be complete within thirty business days after the end of each month. (Basis: Synthetic Minor)
8. BP-The owner/operator shall prepare and submit an annual report to the District's Enforcement Division. The report shall be prepared for the year ending on July 31st of each year and shall be submitted by September 30 of each year. The annual report for the first year following the date this permit is issued shall be compiled from records documenting VOC usage as required by permit conditions existing prior to the synthetic minor permit, as well as records documenting VOC and HAP usage as required by this synthetic minor operating permit. This report shall contain: (Basis: Synthetic Minor)
 - a. the usage of each material for each source or group of sources for the previous twelve months;
 - b. the emission factors and weight percents of VOC and each HAP in each material processed, or equivalent information sufficient to determine emissions from usage data; and
 - c. the annual emissions of VOCs, individual HAPs and total HAPs as calculated for each of the previous twelve months based on actual usage.
9. BP-The owner/operator shall notify the District in writing within ten calendar days of any determination that the facility has exceeded any of the above limits. The notification shall be addressed to the Director of Enforcement and Compliance. (Basis: Synthetic Minor)
10. BP-The owner/operator shall not load any gasoline or non-exempt organic liquids into a marine vessel unless the marine loading operation received a permit to operate from the District. (Basis: Regulation 2-1-302)
11. BP shall conduct annual testing or provide equivalent documentations to determine the weight percentage of HAPs in gasoline stored at the facility. These concentrations and records shall be made available to District personnel upon request and shall be kept for a minimum of five years. (Basis: Synthetic Minor)
12. The tank degassing operations shall be vented at all times to properly maintained and properly operated abatement device with a minimum control efficiency of 90 wt%. BP shall maintain the following records for each day of operation:
 - a. Identification of tanks degassed, dates and hours of degassing
 - b. The monthly POC and HAP emissions from tank degassing operation shall be included in the total monthly summary of VOC, individual HAP and combined HAP usages and emission calculationsThese records shall be made available to District personnel upon request and shall be kept for a minimum of five years. (Basis: Synthetic Minor)

For S-1, Truck Loading Rack and A-1, John Zink Adsorption System

13. Within 6 months of start up of A-1, the owner/operator of A-1, John Zink Adsorption System, shall receive appropriate certification from the California Air Resources Board (CARB) for installation of the new equipment. (Basis: Regulation 8, Rule 33)
14. Immediately at start up of A-1, the owner/operator of A-1 shall install a District approved exhaust flow measurement and continuous hydrocarbon emission monitor at each exhaust outlet of the vapor recovery system. This monitor shall continuously measure hydrocarbon concentration in parts per million as C1. (Basis: Cumulative Increase)
15. Within 90 days of start up of A-1, the owner/operator of A-1 shall perform necessary source testing to establish a relationship between the organic emission concentration measured on the continuous hydrocarbon monitor and the corresponding emission rate in pounds per 1000 gallons of gasoline loaded. This test shall establish the maximum allowable organic concentration level that meets the 0.02 pounds organic per 1000 gallons of gasoline loaded criteria of District's Best Available Control Technology (BACT) Guideline. (Basis: BACT)
16. Within 30 days of start up of A-1, John Zink Adsorption System, the owner/operator shall conduct a District approved source test to demonstrate compliance with all applicable sections of District Regulation 8, Rule 33 "Gasoline Bulk Terminals and Gasoline Delivery Vehicles." This test will be used to establish the Maximum gasoline loading rate (gallons per calendar day). (Basis: Cumulative Increase)
17. Total combined throughput of District's non-exempt products at S-1 Truck Loading Rack shall not exceed the lesser of:
 - a. 34,944,000 gallons of ethanol, and
 - b. 624,000 gallons of Transmix, and
 - c. 247,000,000 gallons of gasoline, or
 - d. The CARB certified terminal gasoline throughput limits.
(Basis: Cumulative Increase)
18. The owner/operator of A-1 shall perform twice monthly inspections of the Vapor Holding Tank to determine organic concentrations in the airspace above the diaphragm. (Basis: Cumulative Increase)
19. The Truck Loading Rack (S-1) shall comply with all applicable district regulations at all times during the construction and start up of the new Vapor Recovery Unit (A-1). (Basis: Regulation 8, Rule 33)
20. The owner/operator of A-1 shall maintain District approved records of all data necessary to determine compliance with the above permit conditions and with the requirements of Regulation 8, Rule 33. These records shall be kept at the facility for a minimum of 5 years and shall be made available to District personnel upon request. (Basis: Regulation 8, Rule 33, Regulation 2-6-503)

For S -4 AND S-18, FIXED ROOF STORAGE TANKS:

21. Sources S-4 and S-18 shall only store materials with a true vapor pressure of 0.1 psia or less. [Basis: Cumulative Increase or Regulation 2-1-234]

For S-4, S -5, S-7, S-8 AND S-9, OUT OF SERVICE STORAGE TANKS

22. The owner/operator of S-4, S-5, S-7, S-8 and S-9 must notify the District in writing three days before any tanks return to service. All tank seal inspections and compliance verification must be done according to Regulation 8, Rule 5 prior to operation. [Basis: Regulation 8, Rule 5]

For S –10, STORAGE TANK:

23. The secondary wiper seal on Tank 9 (S-10) shall comply with the zero-gap criteria of District Regulation 8, Rule 5. [Basis: Regulation 8, Rule 5]

For S –6, S-10, S-11, S-29, S-30 AND S-51, STORAGE TANKS:

24. The primary and secondary seals on Tanks 10 (S-11), S-6, S-10, S-29, S-30, and S-51 shall meet the gap criteria as defined in District Regulation 8-5-321.3.2 & 8-5-322.3, respectively. [Basis: Regulation 8, Rule 5]

For S – 27 AND S-28, STORAGE TANKS:

25. The owner/operator of S-27 and S-28 Internal Floating Roof Tanks shall contact the District at least 3 days before returning these tanks to service to allow for a complete inspection of the new floating roofs. [Basis: Regulation 8, Rule 5]
26. S-27 (Tank #27) shall be abated by an internal floating roof with a liquid mounted resilient foam log primary seal and a rim mounted secondary wiper seal. [Basis: Regulation 8, Rule 5]
- *27. The annual average benzene concentration for all gasoline products stored in S-27 shall not exceed 4.0% (vol.). [Basis: Toxics Risk Assessment requirement adopted by the District Board on May 21, 1986]
- *28. The owner/operator of S-27 shall maintain records of the benzene concentration (vol.) and total throughput for all gasoline products stored in S-27. If the benzene concentration is unavailable for a given gasoline shipment, the records shall indicate the reason for this unavailability. Unavailable concentration data shall not exceed 10% of the total volumetric throughput for S-27. These concentration and throughput records shall be made available to District personnel upon request and shall be kept for a minimum of five years. [Basis: Toxics Risk Assessment requirement adopted by the District Board on May 21, 1986]

For S –51, STORAGE TANK:

29. The total cumulative throughput of gasoline for storage tank S-51 shall not exceed 773,000 bbl per any consecutive 12-month period. The daily throughput of gasoline shall be recorded in a District approved logbook and shall be retained for at least five years from date of entry. These records shall be made available to the District staff for inspection upon request. [Basis: Regulation 2-1-301]

For S –58, STORAGE TANK:

30. Total Jet Fuel “A” throughput at S-58 shall not exceed 34,944,000 gallons in any consecutive 12 month period. (Basis: Cumulative Increase)

31. Total Ethanol throughput at S-58 shall not exceed 34,944,000 gallons in any consecutive 12 month period. (Basis: Cumulative Increase)
32. The S-58 Internal Floating Roof Storage Tank shall store only Jet Fuel “A” and/or Ethanol. (Basis: Cumulative Increase)
33. The S-58 Internal Floating Roof Storage Tank shall be equipped with primary and secondary seals that are in compliance with requirements of Regulation 8, Rule 5, and 40 CFR 60, Subpart Kb for Storage of Organic Liquids. (Basis: Regulation 8, Rule 5, NSPS)
34. Monthly records of all precursor organic throughputs at S-58 shall be kept in a District approved log and retained for at least five years from the date of entry. This log shall be kept on site and made available to District Staff upon request. (Basis: Cumulative Increase)

For S - 59, OIL/WATER SEPARATOR:

35. Source S-59, Oil/Water Separator shall be equipped with a solid, gasketed, fixed cover totally enclosing the separator according to Regulation 8, Rule 8. (Basis: Regulation 8, Rule –8)

For S - 80, EMERGENCY STANDBY ENGINE:

36. The emergency standby engine S-80 shall only be operated to mitigate emergency conditions or for reliability-related activities. S-80’s Operation shall not exceed 500 hours in any consecutive 12 month period. (Basis: Synthetic Minor)
37. “Emergency Conditions” is defined as any of the following: (Basis: Regulation 9-8-231)
 - a. Loss of regular natural gas supply
 - b. Failure of regular electric power supply
 - c. Flood mitigation
 - d. Sewage overflow mitigation
 - e. Fire
 - f. Failure of a primary motor, but only for such time as needed to repair or replace the primary motor.
38. “Reliability-related activities” is defined as any of the following: (Basis: Regulation 9-8-232)
 - a. Operation of an emergency standby engine to test its ability to perform for an emergency use, or
 - b. Operation of an emergency standby engine during maintenance of a primary motor.
39. The emergency standby engine should be equipped with either: (Basis: Regulation 9-8-530)
 - a. A non-resettable totalizing meter that measures and records the hours of operation for the engine
 - b. A non-resettable fuel usage meter.
40. Records: The following monthly records shall be maintained in a District approved log for at least 5 years and shall be made available for District inspection upon request: (Basis: Regulation 9-8-530, 1-441)
 - a. Hours of operation (total)

- b. Hours of operation (emergency)
- c. For each emergency, the nature of the emergency condition.

Date

Thu Bui
Air Quality Engineer II

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