Bay Area Air Quality Management District

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Permit Evaluation
and
Statement of Basis
For
Minor Revision of the
MAJOR FACILITY REVIEW PERMIT

for

Shore Terminals
Facility A0581

Facility Address:
90 San Pablo Ave.
Crockett, CA 94525

Mailing Address:
2801 Waterfront Road
Martinez, CA 94553

October 2005

Application Engineer: Thu H. Bui
Site Engineer: Thu H. Bui

Application: 11862

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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 Volume 40 of the Code of Federal Regulations (CFR), and BAAQMD Regulation 2, Rule 6, Major Facility Review because it is a major facility as defined by BAAQMD Regulation 2-6-212. It is a major facility because it has the "potential to emit," as defined by BAAQMD Regulation 2-6-218, of more than 100 tons per year of a regulated air pollutant. The facility has the "potential to emit" of more than 100 tons per year of a regulated air pollutant, more than 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.

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 A0581.

Current Permit Action

- Condition # 6184, Part 3 is changed to increase the liquid loading into storage tanks S-32 through S-45 from 145,000 barrels per day to 250,000 barrels per day under District's new source review application # 11861.
- Condition # 6184, Part 9, the statement "150 lb/day, nor shall the Cumulative Increase from this facility exceed" is deleted to be consistent with the change from Part 3 under District's new source review application # 11861.
- Modified Tables IV-A, B, C, F, I, and Tables VII-A, B, C, F, and H that were associated with the amended Regulation 8-5 - Storage of Organic Liquids, which was adopted on 11/27/02.
- Remove the SIP requirements of Regulation 8-5 in Tables IV-A, B, C, F, I and Tables VII-A, B, C, F, H because the current rule was adopted into SIP in June 5, 2003.
- The type of limit was changed from NO2 to NOx in Table VII-D for S-22, Gasoline Loading Racks.
- The type of limit was changed from PM to PM(PM_{10}) in Table VII-D for S-22, Gasoline Loading Racks.
- Monitoring requirement citation 8-18, Section 401 was added, and monitoring frequency of valves and flanges was changed from 10 years to quarterly in Table VII-I – Components.
- The definition of NO2 - Nitrogen Dioxide was added to the glossary.

- The definition of vessel calling was added to the glossary (See Appendix A).

B. NSR Permit Evaluation

Currently, Condition # 6184, Part 3 and Part 9 require that the liquid loading into storage tanks S-32 through S-45 be less than 145,000 barrels per day and 150 lb/day, respectively. The permittee sought these limits in order to avoid triggering either a BACT or CEQA evaluation required by District Regulation 2-2 in late 1989 or early 1990. Since then, the District's Regulation 2-2 has changed. We no longer have the trigger level at 150 lb/day. Modern tank ships generally carry around 250,000 barrels or larger. In order to accommodate the larger tanker and comply with the permit's throughput limit, the terminal must shut down the marine offloading operation (S-27) when 145,000 barrels daily level is reached. A vessel might idle at the wharf for up to 10-12 hours, until 12:01 AM the next day to resume transfer operations. As a result, the emissions of NOx, SOx, CO, POC and PM from hoteling can increase. Shore Terminals may have costs associated with idle vessels and crew also. The District has approved the permit modification application from Shore Terminals to increase the daily throughput of gasoline and to eliminate the daily mass emission limit. Because the condition change could result in an increase in emissions, the affected sources were subject to a BACT review. See Appendix B for the whole NSR permit evaluation, Application # 11861.

C. Permit Content

I. Standard Conditions

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

Changes in this action

- Standard Condition I.B.1 has been amended to state that the permit continues in force after the expiration date if a complete application has been submitted in accordance with the renewal deadlines. This is the "application shield" pursuant to BAAQMD Regulation 2-6-407.

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, S-24).

Changes in this action

- The sentence "The capacities in this table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-301" was added to heading of Table II – Equipment list.

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

Changes in this action

Language has been added to Section III to clarify that this section contains requirements that may apply to temporary sources. This provision allows contractors that have "portable" equipment permits that require them to comply with all applicable requirements to work at the facility on a temporary basis, even if the permit does not specifically list the temporary source. Examples are temporary sandblasting or soil-vapor extraction equipment.

Section III has been modified to state that SIP standards are now found on EPA's website and are not included as part of the permit.

IV. Source-Specific Applicable Requirements

Section IV of the permit contains citations to all of the applicable requirements. The text of the requirements is found in the regulations, which are readily available on the District's or EPA's websites, or in the permit conditions, which are found in Section VI of the permit.

- Complex Applicability Determinations

This permit did not require any complex applicability determinations.

Other changes in this action

- Section IV has been modified to state that SIP standards are now found on EPA's website and are not included as part of the permit.
- Table IV-I, the annual throughput of Condition # 6185, Part 3 was increased from 145,000 to 250,000 barrels per day.
- Table IV-I, the POC emissions from S-27 and from S-32 through S-45 shall not exceed 150 lbs/day was deleted from Condition #6185, Part 9.
- Modified Tables IV-A, B, C, F, and I that were associated with the amended Regulation 8-5 - Storage of Organic Liquids, which was adopted on 11/27/02.
- Remove the SIP requirements of Regulation 8-5 in Tables IV-A, B, C, F, and I because the current rule was adopted into SIP in June 5, 2003.

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."

Since the District has not determined that the facility is out of compliance with an applicable requirement, the schedule of compliance for this permit contains only sections 2-6-409.10.1 and 2-6-409.10.2.

VI. Permit Conditions

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 which 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.
- TRMP: This term is used for a condition imposed by the APCO to ensure compliance with limits that arise from the District's Toxic Risk Management Policy.

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.

Additional monitoring has been added, where appropriate, to assure compliance with the applicable requirements.

<u>Changes in this action</u>

- Table VI-I, the annual throughput of Condition # 6185, Part 3 was increased from 145,000 to 250,000 barrels per day.
- Table VI-I, the POC emissions from S-27 and from S-32 through S-45 shall not exceed 150 lbs/day was deleted from Condition #6185, Part 9.
- The word NOx for Oxides of Nitrogen was added to Part 4 in Condition #12677 for clarification.
- The word PM10 for Particular Matter Emissions was added to Part 6 in Condition #12677 for clarification.

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.

Discussion of Other Limits:
The permit contains other limits, such as HAP limits, hours of operation, and heat input. There is adequate monitoring for these limits in the standards or permit conditions.

Changes in this action

- Table VII-G, the POC emissions from S-27 and from S-32 through S-45 shall not exceed 150 lbs/day was deleted from Condition #6185, Part 9.
- Table VII-H, the annual throughput of Condition # 6185, Part 3 was increased from 145,000 to 250,000 barrels per day.
- Table VII-H, the POC emissions from S-27 and from S-32 through S-45 shall not exceed 150 lbs/day was deleted from Condition #6185, Part 9.
- Modified Tables VII-A, B, C, F, and H, which were associated with the amended Regulation 8-5 - Storage of Organic Liquids, which was adopted on 11/27/02.
- Remove the SIP requirements of Regulation 8-5 in Tables VII-A, B, C, F, and H because the current rule was adopted into SIP in June 5, 2003.
- The type of limit was changed from NO2 to NOx in Table VII-A, B, C, D, F, and G for storage tanks and gasoline loading racks.
- The type of limit was changed from PM to PM_{10} in Table VII- A, B, C, D, F, and G for storage tanks and gasoline loading racks.
- Monitoring requirement citation 8-18, Section 401 was added, and monitoring frequency of valves and flanges was changed from 10 years to quarterly in Table VII-I – Components.

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

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

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.
This permit has no streamlining.

X. Revision History

This section contains the details of issuance and revisions for each permit since 2001. The Revision History was updated.

XI. Glossary

This section contains terms that may be unfamiliar to the general public or EPA. See attached Appendix A.

D. Alternate Operating Scenarios

No alternate operating scenario has been requested for this facility.

APPENDIX A

GLOSSARY

ACT
Federal Clean Air Act

APCO
Air Pollution Control Officer

ARB
Air Resources Board

BAAQMD
Bay Area Air Quality Management District

BACT
Best Available Control Technology

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

CAA
The federal Clean Air Act

CAAQS
California Ambient Air Quality Standards

CAPCOA
California Air Pollution Control Officers Association

CEM
Continuous Emission Monitor

CEQA
California Environmental Quality Act

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

CO
Carbon Monoxide

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

District
The Bay Area Air Quality Management District

dscf

Dry Standard Cubic Feet

EPA
The federal Environmental Protection Agency.

Excluded
Not subject to any District regulations.

FDOC
Final Determination of Compliance (FDOC), prepared pursuant to District Regulation 2, Rule 3, Power Plants.

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

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

HAP
Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by 40 CFR Part 63.

HRSG
Heat Recovery Steam Generator

Major Facility
A facility with potential emissions of: (1) at least 100 tons per year of regulated air pollutants, (2) at least 10 tons per year of any single hazardous air pollutant, and/or (3) at least 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity of hazardous air pollutants as determined by the EPA administrator.

MFR
Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Federal Clean Air Act and implemented by District Regulation 2, Rule 6.

MOP
The District's Manual of Procedures.

NAAQS
National Ambient Air Quality Standards

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

NMHC
Non-methane Hydrocarbons (Same as NMOC)

NMOC
Non-methane Organic Compounds (Same as NMHC)

NO2
Nitrogen Dioxide.

NOx
Oxides of nitrogen.

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

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

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

Phase II Acid Rain Facility
A facility that generates electricity for sale through fossil-fuel combustion and is not exempted by 40 CFR 72 from Titles IV and V of the Clean Air Act.

POC
Precursor Organic Compounds

PM
Particulate Matter

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

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

PUC
Public Utilities Commission (California)

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

SO2
Sulfur dioxide

THC
Total Hydrocarbons (NMHC + Methane)

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

TOC
Total Organic Compounds (NMOC + Methane, Same as THC)

TPH
Total Petroleum Hydrocarbons

TRMP
Toxic Risk Management Plan

TSP
Total Suspended Particulate

VOC
Volatile Organic Compounds

Units of Measure:

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

scfm	=	standard cubic feet per minute
yr	=	year

APPENDIX B

NSR PERMIT EVALUATION

APPLICATION # 11861

EVALUATION REPORT
ST SHORE TERMINALS-SELBY
Application #11861 - Plant #581

90 San Pablo Ave.
Crockett, CA 94525

I. BACKGROUND

Shore Terminal - Selby has applied for a condition change of the Permit to Operate for the following equipment:

S-32 Fixed Roof Storage Tanks, 6,300,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-33 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-34 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-35 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-36 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-37 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-38 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-39 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-40 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-41 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-42 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-43 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-44 Fixed Roof Storage Tanks, 1,260,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-45 Fixed Roof Storage Tanks, 210,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.

Currently, Condition # 6184, Part 3 and Part 9 require that the liquid loading into storage tanks S-32 through S-45 be less than 145,000 barrels per day and 150 lb/day, respectively. The permittee sought these limits in order to avoid triggering either a BACT or CEQA evaluation required by District Regulation 2-2 in late 1989 or early 1990. Since then, the District's Regulation 2-2 has changed. We no longer have the trigger level at 150 lb/day. Modern tank ships generally carry around 250,000 barrels or larger. In order to accommodate the larger tanker and comply with the permit's throughput limit, the terminal must shut down the marine offloading operation (S-27) when 145,000 barrels daily level is reached. A vessel might idle at the wharf for up to 10-12 hours, until 12:01 AM the next day to resume

transfer operations. As a result, the emissions of NOx, SOx, CO, POC and PM from hoteling can increase. Shore Terminals may have costs associated with idle vessels and crew also.

ST Shore Terminals is proposing to delete Part 3 of Condition 6184 because there does not appear to be a current regulatory requirement for this limit. Since the District's current practice is to impose a throughput limit to a Title V facility source even though it may be a grandfathered source. It is reasonable for the District to keep the daily limit of liquid loaded into storage tanks S-32 through S-45 but relax the limit to 250,000 barrels per day. The District will delete the emission limit of 150 lb/day in Part 9 of condition 6184 because the limit has been deleted from District's regulation and sources S-32 through S-45, and S-27 meet BACT requirement. Currently, storage tanks are abated by Regenerative Carbon Units (A-421 and A-422) that achieved more than 98.5% control efficiency. This will eliminate the unnecessary combustion emission increases from hoteling, and extra cost to support the idle vessel and crew. Instead of waiting for the Title V permit renewal, Shore Terminals needs to make this conditional change urgently at this time, because as this application is being reviewed, there is a ship on dock that is hoteling, and waiting to offloading its cargoes. The minor modification of the Title V permit for this project is currently under review in Application # 11862.

II. EMISSION INCREASES

There will be an increase in daily POC emissions as a result of raising the daily throughput from 145,000 barrels/day to 250,000 barrels/day for this project. However, there will not be any annual POC emission increases, because the annual throughput at source S-27 remains the same. There will be emission decreases from hoteling. The following emission reductions are calculated just for information because the daily increases will not affect the annual increases:

The hoteling emission factors for NOx, CO, POC, and PM_{10} for ship are from Shore Terminal Condition # 12677 calculation method Schedule F.
Assuming 24 vessels per year and 12 hours of hoteling each vessel.
Assuming 12 vessels are less than 60M Dead Weight Ton (DWT), and 12 vessels are larger than 60M DWT.

Ship emission reductions from 12 hours of hoteling:

	Hrs/day	<60M DWT		12 vessels/yr	> 60MDWT		12 vessels/yr	Total
		Factor (lb/hr)	lb/yr	lb/yr	Factor (lb/hr)	lb/yr	lb/yr	
NOx	12	5.4	778	10.8	1555	2333		
CO	12	0.6	86	1.2	173	259		
POC	12	0.6	86	1.8	259	345		
PM	12	4.8	58	9.6	1382	1440		

III. TOXIC SCREENING ANALYSIS

Toxic risk screening analysis is not required for a project that does not have any emission increases.

IV. BEST AVAILABLE CONTROL TECHNOLOGY

BACT is required for this application, because the POC emissions are greater than 10 lb/highest day per Regulation 2-2-301. The gasoline that was offloading from the marine vessel is routed to fixed roof tanks S-32 through S-45, which are abated by A-421 and A-422 Regenerative Carbon Units. The latest source tests conducted on January 5, 2005 show that both A-421 and A-422 met BACT(2) requirement with greater than 98.5% control efficiency per BACT Guideline Document 107.1, dated 10/28/91 (see attached source test results). Both S-421 and S-422 achieved 0.009 lbs/1000 gallons loaded, which is much less

than 0.08 lbs/1000 gallons, or equivalently more than 98.5% control efficiency according the attached memorandum from Barry Young on letter dated 6/9/00 for BACT revision of Gasoline Bulk Terminals.

V. OFFSETS

Offsets are not required for this application since there is no annual emission increases per Regulation 2-2-302.

VI. PLANT CUMULATIVE INCREASE SINCE 4/5/1991

No emissions are added to the plant's cumulative increase for this permit application. No new emissions of any pollutant will be generated as a result of daily throughput increase.

VII. STATEMENT OF COMPLIANCE

Source S-32 through S-45 Fixed Roof Storage Tanks 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. Source test from Shore Terminals demonstrated the system met 0.009 lbs/1000 gal loaded, which is equivalent to 99.0% control efficiency. (See attached source test result)

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, NESHAPS are not triggered.

VIII. CONDITIONS

COND# 6185

For S-1, S-2, S-3, S-5, S-6, S-12, S-15, S-24, S-25, S-30, S-32 THROUGH S-45, STORAGE TANKS, S-27 MARINE LOADING, AMENDED BY APPLICATION # 11861 AND TITLE V APPLICATION 11862:

1. Storage Tanks S-32 through S-45 and Marine Loading Berth S-27 shall be vented at all times of operation to the properly maintained and properly operated A-421 and A-422 Regenerative Carbon Units. The switching time between carbon canisters for these units shall not exceed 17 minutes while the system is operating. This condition shall not apply to exempt materials. [Basis: Cumulative Increase]

2. The combined total of all hydrocarbon liquids loaded into Storage Tanks S-32 through S-45 shall not exceed 18.8 million barrels in any consecutive 12-month period. [Basis: Cumulative Increase]

3. The combined total of all hydrocarbon liquids loaded into Storage Tanks S-32 through S-45 shall not exceed ~~145,000~~ 250,000 barrels in any calendar day. Daily records of the total liquid loaded into Storage Tanks S-32 through S-45 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]

4. The combined total of all hydrocarbon liquids loaded into marine vessels at the Marine Loading Terminal S-27 shall not exceed 47.6 million barrels in any consecutive 12-month period. Monthly records of the total hydrocarbon liquid loaded into marine vessels at S-27 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]

5. Emissions from the A-421 and A-422 Regenerative Carbon Units shall not exceed 1 pound of POC's per 1000 barrels of hydrocarbon liquid transferred at S-27 and S-32 through S-45. [Basis: Cumulative Increase]

*6. Benzene emissions from the A-421 and A-422 Carbon Systems combined shall not exceed 0.15 lbs per calendar day. [Basis: Toxics]

*7. The average benzene concentration in all hydrocarbon liquids stored in Storage Tanks S-32 through S-45 shall not exceed 2% by weight. The owner/operator of sources S-32 through S-45 shall analyze all materials 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 five 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]

8. Start-up source test condition, deleted.

9. The District shall adjust the throughput limits established in permit conditions 2, 3, and 4, and the emission rate limitation in permit condition 5, if the owner/operator of this facility is able to demonstrate, to the satisfaction of the APCO, that an emission rate less than 1 lb POC/1000 bbl is achievable on a consistent basis. The District would then change the above referenced permit conditions before the issuance of the Permit to Operate for this project. Under no circumstances shall the increase in POC emissions from S-27 as a result of this project plus the new emissions from S-32 through S-45 exceed ~~150 lb/day, nor shall the Cumulative Increase from this facility exceed~~ 40 TPY. [Basis: Cumulative Increase]

10. All new hydrocarbon liquid product pumps associated with this project shall be equipped with either double mechanical shaft seals or shall utilize sealless magnetically coupled pumps. These new pumps shall be subject to the inspection and maintenance requirements of District Regulation 8-18 and any future revisions to this rule. [Basis: Reg. 8-18]

11. All new valves and flanges associated with this project shall be subject to the inspection and maintenance criteria of District Regulation 8-18 and any future revisions to this rule. [Basis: Reg. 8-18]

12. Storage Tanks S-32 through S-45 shall be equipped with properly installed and properly operated pressure relief valves which do not open under normal operating conditions and thereby allow bypassing of the A-421/A-422 Carbon System. The S-27 Marine Terminal shall use connection couplings, which minimize fugitive leaks during connection and disconnection of the product loading and vapor recovery piping. [Basis: Reg. 8-18]

13. The owner/operator of this facility shall submit an accounting of all new pumps, valves, and flanges associated with this project, and shall also identify the numbers of existing pumps, valves,

and flanges, within 60 days of project completion. This accounting shall recalculate fugitive emissions from both these new sources and from existing fugitive sources. The calculations shall also compare the actual new fugitive emissions versus the projected fugitive emissions calculated in the permit application. The District may adjust the plant Cumulative Increase based on the recalculated actual emission rate. [Basis: Cumulative Increase]

14. The owner/operator of the A-421 and A-422 Regenerative Carbon Systems shall install an infrared combustible gas detector or District approved equivalent at the outlet of each of these carbon units. This detector shall continuously measure and record hydrocarbon concentration in PPM as butane. The type and design specifications of this detector shall be approved by the District's Source Test Manager before installation. [Basis: NSPS]

15. Deleted, extra requirement, continuous hydrocarbon monitor and recorder installed at the tail end of the abatement's outlet is already a good indicator.

16. The total number of tank degassing operations at this facility shall not exceed 6 in any consecutive 12-month period. [Basis: Cumulative Increase]

17. The tank degassing operations shall be vented at all times to either the properly maintained and properly operated Carbon Adsorption/Desorption System (A-421 & A-422) or Thermal Oxidizer (A-423). [Basis: Reg. 8-5]

18. The Thermal Oxidizer (A-423) shall maintain a minimum operating temperature of 1400^{o}F, a minimum residence time of 0.5 seconds, and a maximum blower size of 1100 cfm. [Basis: Cumulative Increase]

19. The control equipment (A-421, A-422, & A-423) shall cause the tank to operate at negative pressure during tank cleaning operations. Fugitive emissions during tank cleaning operations shall be minimized. This control equipment shall begin operating prior to flushing the tank with water. [Basis: Cumulative Increase]

20. The storage tank vapors shall be vented to the A-421, A-422, & A-423 control equipment for as long as is necessary to reduce the POC concentration in the vapor stream to less than 1% (vol) or 10,000 ppm. [Basis: Cumulative Increase]

21. A-423 Thermal Oxidizer shall be equipped with a continuous temperature controller set to maintain the operating temperature above 1400^{o}F as required in condition #18. [Basis: Cumulative Increase]

22. A-421, A-422, & A-423 shall be equipped with a continuous hydrocarbon concentration monitor and recorder that measures both the inlet and the outlet concentrations at this abatement equipment. [Basis: NSPS]

23. The owner/operator shall not degas any tanks to the A-421/A-422 Carbon Systems during bulk liquid transfers at any other sources abated by A-421 and A-422. [Basis: Cumulative Increase]

24. The owner/operator of A-421, A-422, & A-423 shall maintain the following records:
    a) Number of tank degassing operations,
    b) Abatement device used for each degassing operation
    c) The operating temperature of the Thermal Oxidizer (A-423), and
    d) The hydrocarbon concentration at the inlet and outlet of the abatement device during the venting operation. [Basis: Recordkeeping]

These records 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]

25. The combined total pumping rate through the three loading arms associated with S-27 shall not exceed 10,000 barrels per hour. [Basis: Cumulative Increase]

26. Only the following materials shall be transferred at Marine Loading Terminal S-27:
    1) Crude Oil
    2) Gasoline
    3) MTBE
    4) Any material which is exempt from District permitting requirements (as long as the loading of this exempt material has been properly reported to the District), or any other petroleum hydrocarbon material with a vapor pressure less than unleaded gasoline (6.2 psia at 70 deg F) and toxicity less than unleaded gasoline (4% benzene by weight). [Basis: Cumulative Increase, Toxics]

IX. RECOMMENDATION

It is recommended that a change in condition for Permits to Operate be granted to Shore Terminal - Selby for the following equipment:

S-32 Fixed Roof Storage Tanks, 6,300,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-33 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-34 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-35 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-36 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-37 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-38 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-39 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-40 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-41 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-42 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-43 Fixed Roof Storage Tanks, 8,022,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-44 Fixed Roof Storage Tanks, 1,260,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.
S-45 Fixed Roof Storage Tanks, 210,000 gallons capacity, abated by Carbon Adsorption Systems A-421 or A-422, John Zink.

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

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