Bay Area Air Quality Management District

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Permit Evaluation
and
Statement of Basis
for
RENEWAL of

MAJOR FACILITY REVIEW PERMIT

for

SFPP, L.P.
Facility #A4020

Facility Address:
2150 Kruse Drive
San Jose, CA 95131

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Orange, CA 92868

Application Engineer: Dharam Singh
Site Engineer: Dharam Singh

Application: 14536

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Title V Statement of Basis

A. Background

This facility is subject to the Operating Permit requirements of Title V of the federal Clean Air Act, Part 70 of Title 40 of the Code of Federal Regulations (CFR), and BAAQMD Regulation 2, Rule 6, Major Facility Review because it is a major facility as defined by BAAQMD Regulation 2-6-212. It is a major facility because it has the "potential to emit," as defined by BAAQMD Regulation 2-6-218, of more than 100 tons per year of a regulated air pollutant.

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 A4020.

This facility received its initial Title V permit on November 21, 2001. This application is for a permit renewal. Although the current permit expired on October 31, 2006, it continues in force until the District takes final action on the permit renewal.

The standard sections of the permit will be upgraded to include new standard language used in all Title V permits.

Two new sources (S47, Unloading rack for ethanol; S48, Offspec unloading rack 8), and an abatement device (A3, Portable vapor combustion unit) will be added to the permit. The evaluation of these sources was done via Applications 14448, 15434, and 15571.

Parametric requirements of District Regulation 1-523 for sources with abatement device subject to temperature limits will be added.

Requirements of District Regulation 8-33 will be updated as per amendments.

Applicable requirements of 40 CFR Part 63, Subpart BBBBBB will be added.

The proposed permit shows all changes to the permit in strikeout/underline format.

The following permit applications have been approved since the last TV permit modification: Applications #14448 & 16698: Unloading Rack (ethanol); #15434: Offspec unloading rack 8; #15571: Portable vapor combustion unit; and #15410: Change in condition ID# 7492

B. Facility Description

SFPP, L.P. is a bulk terminal where refined petroleum products are stored in storage tanks and dispensed by loading racks into truck tankers for distribution. Emissions from the facility are primarily volatile organic compounds, the main pollutant of concern.

There has been no significant change in emissions due to the addition of unloading racks and other minor revisions after the issuance of the initial permit.

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.

<u>Changes to permit:</u>

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

The following language was added as Standard Condition I.B.12:

> "The permit holder is responsible for compliance, and certification of compliance, with all conditions of the permit, regardless whether it acts through employees, agents, contractors, or subcontractors. (Regulation 2-6-307)." The purpose is to reiterate that the Permit Holder is responsible for ensuring that all activities at the facility comply with all applicable requirements.

The dates of the reporting periods and reporting deadlines have been added to Standard Conditions I.F and I.G for additional clarity

II. Equipment

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

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

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

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

Following are explanations of the differences in the equipment list between the time that the facility originally applied for a Title V permit and the permit proposal date:

Sources, S47, S48, and abatement devices, A3, A47 were permitted after the initial Title V permit was issued.

Changes to permit:
New sources, S47, S48, and abatement devices, A3, A47, will be added to this part of the permit.

III. Generally Applicable Requirements

This section of the permit lists requirements that generally apply to all sources at a facility including insignificant sources and portable equipment that may not require a District permit. If a generally applicable requirement applies specifically to a source that is permitted or significant, the standard will also appear in Section IV and the monitoring for that requirement will appear in Sections IV and VII of the permit. Parts of this section apply to all facilities (e.g., particulate, architectural coating, odorous substance, and sandblasting standards). In addition, standards that apply to insignificant or unpermitted sources at a facility (e.g., refrigeration units that use more than 50 pounds of an ozone-depleting compound) are placed in this section.

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

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

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

- BAAQMD Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants
- Regulation 8, Rule 2, Miscellaneous Operations
- Regulation 8, Rule 4, General Solvent and Surface Coating Operations
- Regulation 8, Rule 15, Emulsified and Liquid Asphalts
- SIP Regulation 8, Rule 18, Equipment Leaks
- BAAQMD Regulation 8, Rule 25 changed to SIP Regulation 8, Rule 25 because it is deleted from District listing of Regulations
- SIP Regulation 8, Rule 40 Aeration of Contaminated Soil and Removal of Underground Storage Tanks
- SIP Regulation 8, Rule 47, Air Stripping and Soil Vapor Extraction Operations
- SIP Regulation 8, Rule 51, Adhesive and Sealant Products
- SIP Regulation 9, Rule 1, Sulfur Dioxide
- California Health and Safety Code Section 93115 et seq., Airborne Toxic Control Measure for Stationary Compression Ignition Engines

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's or EPA's websites, or in the permit conditions, which are found in Section VI of the permit. All monitoring requirements are cited in Section IV. Section VII is a cross-reference between the limits and monitoring requirements. A discussion of monitoring is included in Section C.VII of this permit evaluation/statement of basis.

CAM:

The loading racks (S1, S28, S29, S30, S31, and S32) comply with the Compliance Assurance Monitoring (CAM) requirements of 40 CFR Part 64. Material throughput limit is monitored on an hourly and daily basis. The operating temperature of the vapor processing units, A2 & A3, which abate VOC emissions from these racks, and its exhaust VOC concentration are monitored continuously. The vapor processing units are also subject to periodic source test to demonstrate compliance with the emission limits.

NESHAPS

The facility is not subject to the requirements of 40 CFR 63, Subpart R – National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations). The facility is exempt from the requirements of Subpart R because E_T, emissions screening factor (= 0.44) is <1.0, and emissions of a single HAP are less than 10 tpy and total HAPs are less than 25 tpy.

However, the facility is subject to the requirements of 40 CFR 63, Subpart BBBBBB – National Emission Standards for Hazardous Air Pollutants for Source category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities as per 63.11081(a)(1).

The calculations are as follows:

ET Calculations

$$E_T=CF\ [0.59(T_F)(1\text{-}CE)+0.17(T_E)+0.08(T_{ES})+0.038(T_I)+8.5X10^{-6}(C)+KQ]+0.04(OE)$$
$$= 0.44$$

Where,
E_T=emissions screening factor for bulk gasoline terminals;
CF=0.161;
CE=0.0, control efficiency;
T_F=0.0, total number of fixed roof tanks without internal floating roof;
T_E=0.0, total number of external floating roof tanks with only primary seals;
T_{ES}=0.0, total number of external floating roof tanks with primary and secondary seals;;

T_I=28; total number of fixed roof gasoline tanks with an internal floating roof;
C=2701, number of valves, pumps, connectors, loading arm valves, and open ended lines in gasoline service;
Q=15,141,200, gasoline throughput (liters/day);
K, (4.5x10-9(EF+L)=1.017E-07;
EF=9.6, emission rate limitation (mg/l);
OE=0.3, other HAP screening factor (tons/yr);
L=13, for gasoline cargo tank not meeting the requirements to satisfy the test criteria for a vapor-tight gasoline tank truck (mg/l)

HAP emission calculations

Potential to emit VOC from gasoline products = 678,215 lbs/yr
= 339.1 tpy
HAP concentrations by weight in VOC (Ref: Gasoline Marketing (Stage I & Stage II), Volume III Chapter 11, Revised final, Area Source Committee, Emission Inventory Improvement Program, January 2001, Table 11.3-2) are used to calculate HAP emissions:

Benzene (= 0.9%) = 3.05 tpy
Ethyl Benzene (= 0.1%) = 0.339 tpy
n-hexane (= 1.6%) = 5.42 tpy
POM as 16-PAH (= 0.05%) = 0.17 tpy
Toluene (= 1.3%) = 4.4 tpy
2,2,4-Trimethylpentane (= 0.8%) = 2.71 tpy
Xylene (= 0.5%) = 1.7 tpy

Total HAP emissions = 17.79 tpy

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

The applicable requirements of District's Regulation 8 Rules 5, 8, 18, and 33 will be updated.

New tables for S47 and S48 will be added.

The applicable requirements of 40 CFR 63, Subpart BBBBBB will be added.

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.

The BAAQMD Compliance and Enforcement Division has conducted a review of compliance over the past year and has no records of continuing compliance problems at this facility during the past year. Furthermore, the District reviewed compliance records for the past five years and found no recurring pattern of compliance violations that would suggest the need for additional permit conditions. The compliance report is contained in Appendix A of this permit evaluation and statement of basis.

Changes to permit:
No changes will be made to this part of the permit.

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 has 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.

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 record-keeping 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 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.

Changes to permit:

Permit conditions ID# 23134 for S47, unloading rack for ethanol, and ID# 23491 for S48, offspec unloading rack will be added. Permit condition ID# 7492 will be revised to reflect changes approved under Application 15410, and as per amendment of Regulation 8-33.

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. Monitoring in Regulation 8 Rule 5 has increased and is adequate.

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 only when it can support a conclusion that existing monitoring is inadequate**.**

POC Sources

S# & Description	Citation of Limit	Federally Enforceable Emission Limit	Monitoring
S47, Unloading Rack 7 (Ethanol)	BAAQMD 8-6-304	Y	N
S48, Offspec Unloading Rack 8	BAAQMD 8-2-301	N	N
	SIP 8-2-301	Y	N

POC Discussion:

S47, Unloading Rack 7 is used to unload ethanol from trucks to above ground storage tanks. POC emissions are controlled by a vapor balance system with a control efficiency of 95%. The violation of the control efficiency and the emission limit are unlikely. Therefore, no monitoring is necessary for this source.

S48, Offspec Unloading Rack 8 is used to unload product (gasoline), which does not meet the specifications (ethanol concentration), from trucks to above ground storage tanks. POC emissions are controlled by a vapor balance system with a control efficiency of 95%. The violation of the control efficiency and the emission limit are unlikely. Therefore, no monitoring is necessary for this source.

SO2 Sources

S# & Description	Citation of Limit	Federally Enforceable Emission Limit	Monitoring
A2, Vapor Processing Unit (thermal oxidizer) and vapor bladder	BAAQMD 9-1-301	N	N
	BAAQMD 9-1-302	N	N
	SIP 9-1-301	Y	N
	SIP 9-1-302	Y	N
A3, Portable Vapor Combustion Unit	BAAQMD 9-1-301	N	N
	BAAQMD 9-1-302	N	N
	SIP 9-1-301	Y	N
	SIP 9-1-302	Y	N

SO2 Discussion:

BAAQMD Regulation 9-1-301

Area monitoring to demonstrate compliance with the ground level SO2 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 SO2 and therefore is not required to have ground level monitoring by the APCO.

All facility combustion sources are subject to the SO2 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	Citation of Limit	Federally Enforceable Emission Limit	Monitoring
A2, Vapor Processing Unit (thermal oxidizer) and vapor bladder	BAAQMD 6-1-301	N	N
	SIP Regulation 6-301	Y	N
	BAAQMD 6-1-310	N	N
	SIP Regulation 6-310	Y	N
A3, Portable Vapor Combustion Unit	BAAQMD 6-1-301	N	N
	SIP Regulation 6-301	Y	N
	BAAQMD 6-1-310	N	N
	SIP Regulation 6-310	Y	N

PM Discussion:

BAAQMD Regulation 6 “Particulate Matter”

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. Abatement devices, A2 & A3, burn gasoline vapors and natural gas exclusively, 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 abatement devices.

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. Abatement devices, A2 & A3, burn gasoline vapors and natural gas exclusively, 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 abatement devices.

Changes to permit:
The standard language at the beginning of the section has been updated.
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.

New tables for S47 and S48 will be added.

The applicable requirements of the District's Regulation 8, Rules 5, 18, and 33 will be updated.

The applicable requirements of 40 CFR 63, Subpart BBBBBB will be added.

VIII. Test Methods

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

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

Changes to permit:
Applicable requirements of Regulation 6, Regulation 8, Rules 5, 25, and 33 will be updated as shown.

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.

X. Glossary

Changes to permit:

There will be no change in the glossary.

XI. Appendix A - State Implementation Plan

Changes to permit:

This section has been deleted. The address for EPA's website is now found in Sections III and IV.

D. Alternate Operating Scenarios:

No alternate operating scenario has been requested for this facility.

E. Compliance Status:

The attached office memorandum from the Director of Compliance and Enforcement to the Director of Permit Services dated February 11, 2009, presents a review of the compliance record of SFPP, L.P. (Site # A4020). The Compliance and Enforcement Division staff has reviewed the District compliance records for SFPP, L.P. for the period beginning February 11, 2008 through February 11, 2009 and the annual compliance certifications submitted by SFPP, L.P. for the period beginning December 12, 2004 through February 11, 2009. This review was initiated as part of the District evaluation of the application for a renewal Title V permit that was submitted by SFPP, L.P.. During the period subject to review, activities known to the District include:

- The District did not issue any Notices of Violation during this review period.

- The District did not receive any air pollution complaints alleging SFPP, L.P. as the source
- The facility is not operating under a Variance or an Order of Abatement from the District Board.
- There were no monitor excesses or equipment breakdowns reported or documented by District staff.

The owner certified that all equipment was operating in compliance on June 19, 2006. No non-compliance issues have been identified to date.

F. Differences between the Application and the Proposed Permit:

The Title V permit application 14536 was submitted on April 25, 2006. This version is the basis for constructing the proposed Title V permit. Revisions were made to the application 14536 as a result of changes at the facility that were made pursuant to Permit Applications 14448, 15410, 15434, and 15571. Changes to the permit ***conditions, application, sources, etc.*** include the following:

Sources, S47 & S48, and abatement devices, A3 & A47 were permitted under Applications 14448, 15434 and 15571 after the Title V permit renewal application was submitted. The sources and the abatement devices and its associated permit conditions will be included in the proposed permit. Permit condition ID# 7492 will be revised to reflect changes approved under Application 15410.

APPENDIX A

BAAQMD Compliance Report

APPENDIX B

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

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.

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.

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)

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.

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 C

BAAQMD Evaluation Reports

ENGINEERING EVALUATION REPORT
SFPP,L.P.
PLANT NUMBER 4020
APPLICATION NUMBER 14448

BACKGROUND

SFPP,L.P. has been operating without a permit an ethanol unloading rack at the bulk terminal in San Jose. The rack unloads denatured ethanol from trucks to above ground storage tanks S-6 & S-12. Ethanol is first gravity fed to an air eliminator. The air eliminator is equipped with a sensor that activates a pump to transport ethanol to the storage tanks. Liquid level in the air eliminator is maintained above the effluent pipe to prevent air from entering the system. Vapors are generated during the filling of the air eliminator. Each eliminator is equipped with a vent line with a pressure/vacuum valve. The vapors are released through the vent line. When the pump activates, the ethanol being filled into the air eliminator is removed. The pressure inside the system is reduced and the pressure/vacuum valve shut.

SFPP is proposing to vent the air eliminators back to the unloading truck tank. The resulting vapor balance system will prevent all non-fugitive emissions at the site.

The application covers the following source:

S-47 Unloading Rack 7 (ethanol); 4 loading arms.

EMISSION CALCULATIONS

POC (ethanol) emissions from the loading rack are calculated using emission factor of 0.17 lb/1000 gallon (Ref: Regulation 8-6-304), a throughput of 59.4 MM gallon/yr (Ref: condition # 7492, part 12), and vapor balance control efficiency of 95%.

POC emissions = (0.17 lb/1000 gallon)(59.4 MM gallon/yr)(1-0.95)
= 505 lb/yr
= 0.253 tpy

Fugitive POC (ethanol) emissions from the loading rack are generated from components associated with the piping of the system. Fugitive emissions are calculated using the following equation and emission factor associated with each type of component (Ref: Table 2-1 of the USEPA’s Protocol for Equipment Emission Estimates, November 1995).

P = TF

where:
P = fugitive precursor emissions, lb/hr
T = number of each type of component
= 2 pump seals; 4 air eliminators; 4 strainers; 12 valves; 32 flanges
F = emission factor associated with each type of component, kg/hr
= 5.4E-04 (pump seal)
= 1.3E-04 (air eliminator)
= 1.3E-04 (strainer)
= 4.3E-05 (valve)
= 8.0E-06 (flange)

P = [(2)(5.4E-04 kg/hr)+(4)(1.3E-04 kg/hr)+(4)(1.3E-04 kg/hr)
+(12)(4.3E-05 kg/hr)+(32)(8.0E-06 kg/hr)](2.2 lb/kg)(24 hrs/day)
(365 days/yr)
= 55.74 lb/yr
= 0.028 tpy

Total POC emissions = 0.253 tpy + 0.028 tpy
= 0.281 tpy

PLANT CUMULATIVE EMISSION INCREASE

POC = 0.281 tpy

BACT DETERMINATION

POC emissions from the rack are less than 10 lbs/day and therefore do not require BACT per the District Regulation 2-2-301.

OFFSET REQUIREMENTS

Offset requirements of Regulation 2-2-302 are triggered for facility wide POC emissions greater than 10 tpy. Offsets are provided in a ratio of 1.0:1.0 from the Small Facility Banking Account.

POC offset provided = 0.281 tpy

TOXICS EMISSIONS & RISK SCREENING ANALYSIS

Denatured ethanol contains 5% by weight of gasoline, which contains 0.06% by weight of benzene and 0.02% by weight of naphthalene besides other toxic compounds. Benzene and naphthalene have the lowest toxic trigger levels of 6.4 lb/yr and 5.3 lb/yr respectively, and therefore their emissions are estimated.

Benzene emissions = (562 lb/yr ethanol emissions)(5% gasoline)(0.06% benzene)
= 0.017 lb/yr
Naphthalene emissions = (562 lb/yr ethanol emissions)(5% gasoline)
(0.02% naphthalene)
= 0.006 lb/yr

Toxic risk screening analysis is not required for benzene and naphthalene emissions below the toxic trigger levels. (Ref. Table 2-5-1 of Regulation 2-5).

STATEMENT OF COMPLIANCE

The unloading rack, S-47, complies with the requirements of Sections 8-6-304, 305, 306, and 307 of the District Regulation 8 Rule 6, Organic liquid Bulk Terminals and Bulk Plants, Regulation 8-18, Equipment leaks, and Regulation 8-25 (SIP), Pump & Compressor.

The project is considered ministerial under the District's CEQA Regulation 2-1-311 (PHBK chapter 3.1), and therefore is not subject to CEQA review.

The source is not located within 1000 feet of the nearest school, and therefore is not subject to the public notice requirements of Regulation 2-1-412.

BACT is not required for POC emissions less than 10 lbs/day.

Offset requirements are discussed in a separate section of this report.

PSD, and NESHAPS do not apply.

PERMIT CONDITIONS

For S-47, Unloading Rack 7 (ethanol), 4 loading arms

1. The owner/operator shall receive denatured ethanol at this facility only through S-47 and shall not exceed a throughput limit of 59.4 million gallons per consecutive 12-month period. (basis: permit condition 7492, part 12)
2. The owner/operator shall not transfer denatured ethanol unless a vapor balance system is installed and properly connected during delivery. (basis: Regulation 8-6-304)
3. The owner/operator shall keep records in a District approved logbook to demonstrate compliance with part 1 and keep the records for at least five (5) years from the date of data entry and make it available to the District staff upon request. (basis: Regulation 2-6-501)

RECOMMENDATIONS

I recommend that SFPP, L.P. be issued a permit to operate for the source described in the background section of this report.

EXEMPTIONS:

None

BY:_____
Dharam Singh, AQE II

ENGINEERING EVALUATION REPORT
SFPP,L.P.
PLANT NUMBER 4020
APPLICATION NUMBER 15410

BACKGROUND

SFPP, L.P. operates a bulk terminal in San Jose. There are five loading racks operating at this terminal. They are subject to the permit condition ID # 7492.

Part 3 of the condition (ID# 7492) limits a daily total material throughput of 4,000,000 gallons without specifying mode of operation. Based on this daily limit there is an implied yearly limit of 1,460,000,000 gallons in any mode of operation (direct/normal/by-pass) for the purpose of cumulative increase in POC emissions. The daily and annual limits can-not be exceeded in any mode without new source review in the future.

Part 12 of the condition (ID# 7492) limits ethanol throughput at the loading rack, S-28. Since ethanol is an oxygenate added to gasoline, the applicant has requested that ethanol can be mixed and dispensed at any of the five loading racks instead of only at S-28, and also combine the ethanol throughput limit of 59.4 million gallons/yr with total material throughput of 1,460,000,000 gallons/yr as calculated above. The applicant's request to make the necessary amendment to the permit condition will not result in any increase in emissions.

The application covers the following sources:

S-1, S-28 through S-32 Loading Racks.

EMISSION CALCULATIONS

Emission calculation is not required. Annual and daily POC emissions from the loading racks will remain unchanged.

TOXIC RISK SCREENING ANALYSIS

A toxic risk screening analysis is not required because toxics emissions will not increase due to the amendment of the permit condition.

PLANT CUMULATIVE EMISSION INCREASE

POC = 0.0 tpy

STATEMENT OF COMPLIANCE

The loading racks continue to comply with the requirements of Regulation 8 Rule 33.

The project is considered to be ministerial under the District's CEQA Regulation 2-1-311 (PHBK chapter 3.1), and therefore is not subject to CEQA review.

The project is over 1000 feet from the nearest school, and therefore is not subject to the public notice requirements of Regulation 2-1-412.

Offset requirements of Regulation 2-2-302 are not triggered for POC emissions.

PSD, NSPS, and NESHAPS do not apply.

PERMIT CONDITIONS

The permit condition ID # 7492 is revised as per the applicant's request.

RECOMMENDATIONS

It is recommended that SFPP, L.P. shall be issued a permit to operate with change of permit condition ID# 7492 for the loading racks.

EXEMPTIONS: None

BY:_____
Dharam Singh, AQE II

ENGINEERING EVALUATION REPORT
SFPP,L.P.
PLANT NUMBER 4020
APPLICATION NUMBER 15434

BACKGROUND

SFPP,L.P. has been operating an offspec unloading rack at the bulk terminal in San Jose without a permit since 2003. The rack unloads gasoline blended with denatured ethanol from trucks to above ground storage tanks. One of the reasons for unloading is incorrect ratio of gasoline & ethanol mix (offspec). In addition, tanker trucks may need to be unloaded for analysis and inspection purposes.

The tanker truck is connected to the unloading rack with a flexible hose. The offspec product gravity feeds to the 8″ bottom loading line. The 8″ bottom loading line is connected to the 24″ diameter pump sleeve. As the pump sleeve fills, vapors are pushed out of the system via a valve located on the 2″ vent. The pump is activated which begins to withdraw the offspec product from the sleeve and transfer it to above ground multi-liquid storage tanks. Vapors are generated during the filling of the loading line and pump sleeve. The vapors are released through the vent line. When the pump activates the pressure inside the system is reduced and the pressure/vacuum valve shuts. SFPP is proposing to connect the vent line to the unloading truck tank. The resulting vapor balance system will reduce non-fugitive emissions at the system.

The application covers the following source:

S-48 Offspec Unloading Rack 8, 2 loading arms.

EMISSION CALCULATIONS

Since POC are emitted from the system only during the initial filling of the pump sleeve (event), POC emissions from the unloading rack are calculated using emission factor of 0.3 lb/1000 gallon (Ref: AP-42 Chapter 5.2, Table 5.2-7, Evaporative Emissions from Gasoline Service Station Operations for a balanced submerged fill system), and a throughput based on the volume (235 gallons) of the rack system multiplied by the number of events. Unlike underground storage tank at the gas station, the offspec product is stored in a floating roof tank and emissions from that tank are accounted separately.

Basis:
1. Events = 20/day; 6600/yr
2. Volume displaced per event = 235 gallons
3. POC emission factor = 0.3 lb/1000 gallons

POC emissions = (0.3 lb/1000 gallon)(235 gallon/event)(6600 events/yr)
= 465.3 lbs/yr
= 0.233 tpy

Fugitive POC emissions from the unloading rack are generated from components associated with the piping of the system. Fugitive emissions are calculated using the following equation and emission factor associated with each type of component (Ref: Table 2-1 of the USEPA's Protocol for Equipment Emission Estimates, November 1995).

P = TF

where:
P = fugitive precursor emissions, lb/hr
T = number of each type of component
  = 1 pump seal; 2 air eliminators; 2 strainers; 6 valves; 16 flanges
F = emission factor associated with each type of component, kg/hr
  = 5.4E-04 (pump seal)
  = 1.3E-04 (air eliminator)
  = 1.3E-04 (strainer)
  = 4.3E-05 (valve)
  = 8.0E-06 (flange)

P = [(1)(5.4E-04 kg/hr)+(2)(1.3E-04 kg/hr)+(2)(1.3E-04 kg/hr)
  +(6)(4.3E-05 kg/hr)+(16)(8.0E-06 kg/hr)](2.2 lb/kg)(24 hrs/day)
  (365 days/yr)
  = 27.87 lbs/yr
  = 0.014 tpy

Total POC emissions = 0.233 tpy + 0.014 tpy
                    = 0.247 tpy

PLANT CUMULATIVE EMISSION INCREASE

POC = 0.247 tpy

BACT DETERMINATION

POC emissions from the rack are less than 10 lbs/day and therefore do not require BACT as per the District Regulation 2-2-301.

OFFSET REQUIREMENTS

Offset requirements of Regulation 2-2-302 are triggered for facility wide POC emissions greater than 35 tpy. Offsets are provided in a ratio of 1.15:1.0 from the Certificate # 1024.

POC offset provided = (0.247 tpy)(1.15)
                    = 0.282 tpy

TOXICS EMISSIONS & RISK SCREENING ANALYSIS

The offspec gasoline products contain various concentrations of ethanol. However, as a conservative factor for the calculation of Toxic Air Contaminants (TAC) emissions, it is assumed that all the POC emissions are gasoline vapors.
Gasoline vapor contains 0.06% by weight of benzene and 0.02% by weight of naphthalene besides other toxic compounds. Benzene and naphthalene have the lowest toxic trigger levels of 6.4 lb/yr and 5.3 lb/yr respectively, and therefore their emissions are estimated.

Benzene emissions = (494 lb/yr)(0.06% benzene)
                  = 0.296 lb/yr
Naphthalene emissions = (494 lb/yr)(0.02% naphthalene)
                      = 0.1 lb/yr

Toxic risk screening analysis is not required for benzene and naphthalene emissions below the toxic trigger levels (Ref. Table 2-5-1 of Regulation 2-5).

STATEMENT OF COMPLIANCE

The offspec unloading rack, S-48, complies with the requirements of Regulation 8-2-301, Miscellaneous Operations, Regulation 8-18, Equipment leaks, and Regulation 8-25 (SIP), Pump & Compressor.

The project is considered ministerial under the District's CEQA Regulation 2-1-311 (PHBK chapter 11.9), and therefore is not subject to CEQA review.

The source is not located within 1000 feet of the nearest school, and therefore is not subject to the public notice requirements of Regulation 2-1-412.

BACT is not required for POC emissions less than 10 lbs/day.

Offset requirements are discussed in a separate section of this report.

PSD, and NESHAPS do not apply.

PERMIT CONDITIONS

For S-48, Offspec Unloading Rack 8, 2 loading arms

1. The owner/operator shall unload offspec gasoline at this facility only through S-48 and shall not exceed number of unloading event limit of 6600 per consecutive 12-month period. (basis: cumulative increase)
2. The owner/operator shall not unload offspec gasoline unless a vapor balance system is installed and properly connected during unloading. (basis: cumulative increase)
3. The owner/operator shall keep records in a District approved logbook to demonstrate compliance with part 1 and keep the records for at least five (5) years from the date of data entry and make it available to the District staff upon request. (basis: Regulation 2-6-501)

RECOMMENDATIONS

I recommend that SFPP, L.P. be issued a permit to operate for the source described in the background section of this report.

EXEMPTIONS:

None

BY:_____
Dharam Singh, AQE II

ENGINEERING EVALUATION REPORT
SFPP, L.P.
PLANT NUMBER 4020
APPLICATION NUMBER 15571

BACKGROUND

SFPP operates a bulk terminal in San Jose. Emissions from the loading racks are abated by a thermal oxidizer, A-2, which is subject to the permit condition ID# 7492. A source test conducted on 11/17/06 by the District indicated operation of the thermal oxidizer out of compliance with the requirements of Regulation 8-33-301 (0.08 lb of VOC emission/1000 gallons of organic liquid loaded) and part 13 (destruction efficiency of 98.5% or greater) of the permit condition ID# 7492. As a consequence of this, SFPP has submitted an application to obtain an A/C and a P/O a portable thermal oxidizer (same rating as A-2) in parallel with A-2 (when A-2 is operated at reduced load or is down for maintenance or off line for investigation and repair during the variance period). SFPP had also applied for a variance (Docket 3525) and had been granted a short term variance (through 2/19/07) by the Hearing Board on 1/4/07.

The application covers the following abatement device:

A-3 Portable Vapor Combustion Unit, GEM (42 MMBTU/hr) or Jordan Technologies (41 MMBTU/hr).

EMISSION CALCULATIONS

The operation of the temporary vapor combustion unit (A-3) at full load in lieu or to supplement the existing unit (A-2) will not result in increase in emissions from the facility. The units use LPG to ignite the pilot flame, which in turn ignites the organic vapors (gasoline, diesel, ethanol, etc.) from the loading racks.

PLANT CUMULATIVE INCREASE

None

TOXICS EMISSIONS AND RISK SCREENING ANALYSIS

Toxic risk screen analysis is not required because there is no net increase in toxic emissions.

STATEMENT OF COMPLIANCE

On the basis of the information submitted, the loading racks abated by the vapor combustion units, A-2 and/or A-3) will continue to operate in compliance with the requirements of Regulation 8 Rule 33, Gasoline Bulk Terminals and Gasoline Delivery Vehicles, and permit condition ID# 7492.

The project does not require CEQA review since it is considered ministerial under the District CEQA Regulation 2-1-311 (PHBK Chapter # 3.1).

The project does not trigger offset requirements of Regulation 2-2-302 for POC and NOx because of no net increase in emissions.

Public notification requirements of section 2-1-412 are not triggered because the facility is not located within 1000 feet of the nearest school.

PSD, NSPS, and NESHAPS do not apply.

PERMIT CONDITIONS

The permit condition ID# 7492 is revised by including A-3.

RECOMMENDATIONS

It is recommended that SFPP, L.P. be issued a Permit to Operate the abatement device described in the background section of this report.

EXEMPTION: None.

BY:_____
Dharam Singh, AQE II