

Bay Area Air Quality Management District

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Permit Evaluation and Statement of Basis for RENEWAL of the

MAJOR FACILITY REVIEW PERMIT

for
SFPP, L.P.
Facility # A4021

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July 2019

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Application #29582

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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. For easier identification, the District assigns each facility in the Bay Area a facility number that consists of a letter and a 4-digit number. This number is also used to identify this Title V permit. The facility number for this facility is **A4021**.

The Title V operating permit program arose out of Title V of the 1990 federal Clean Air Act Amendments (CAAA), which required the United States Environmental Protection Agency (EPA) to establish a national, federally enforceable operating program for certain significant stationary sources of pollution. Pursuant to the CAAA, the EPA adopted Title 40, Chapter 1, Part 70 of the Code of Federal Regulations (40 CFR Part 70), which required each state and local permitting authority, including the BAAQMD, to develop and submit for EPA approval a federally enforceable permit program. The District’s Title V permit program, which is set forth in District Regulation 2, Rule 6 (Major Facility Review), satisfies the requirements of 40 CFR Part 70 and has been approved by the EPA.

A major goal of the Title V permit program is to consolidate all of the permitted facility’s “applicable requirements” into one document to ensure that the facility understands all of its air quality obligations under District regulations, state law and the federal Clean Air Act. (The term “applicable requirements” is defined in BAAQMD Rule 2-6-202.) The Title V permit also serves the important purposes of informing the public about the emissions, monitoring, recordkeeping, and reporting requirements imposed on sources and allowing public participation in the permitting process.

This application is for the renewal of the initial Title V permit. Pursuant to Regulation 2, Rule 6, section 416, the District has reviewed the terms and conditions of this Major Facility Review permit and determined that they are still valid and correct. This review included an analysis of applicability determinations for all sources, including those that have been modified or permitted since the issuance of the initial Major Facility Review Permit. The review also included an assessment of all monitoring in the permit for sufficiency to determine compliance.

This facility received its initial Title V permit on May 6, 2014. This application is for a permit renewal. Although the current permit expired on May 5, 2019, it continues in force until the District takes final action on the permit renewal because SFPP submitted a complete renewal application at least 6 months prior to expiration. The proposed permit shows all changes to the permit in strikeout/underline format.

SFPP, L.P., Brisbane Terminal Title V Permitting History

Initial Title V Permit (2014):

The District issued the initial Title V permit to SFPP, L.P. (Application No. 17167) on May 06, 2014.

Administrative Amendment (2015):

On January 15, 2015, the District administratively amended the Title V permit (Application No. 26804).

Administrative Amendment (2017):

On June 16, 2017, the District administratively amended the Title V permit (Application No. 28640). The responsible official name for SFPP, L.P. was updated, the District's address was updated, and USEPA's address was updated as part of this administrative amendment.

Application for Title V Permit Renewal (2018):

SFPP, L.P. submitted Application No. 29582 on October 30, 2018 for the renewal of their Title V permit. Although the current permit expires on May 05, 2019, it continues in force until the District takes final action on the permit renewal.

Since the initial Title V permit for SFPP, L.P. was issued, NSR Application No. 26848 for an administrative change of permit conditions for sources S-21 through S-25 was processed by the District. The table below identifies this application and the final actions. The detailed evaluation report for this application is provided in Appendix C.

Summary of NSR Applications				
NSR Application	Description	Title V Revision	New Sources	Outcome
26848	An administrative change of permit conditions for sources S-21 through S-25 (loading racks) to provide SFPP, L.P. operational flexibility and did not result in an emissions increase.	Administrative Amendment	5	<p>A/C Issued on 04/23/2015 for</p> <ul style="list-style-type: none"> S-21, S-22, S-23, S-24, and S-25 <p>Modified Permit Condition</p> <ul style="list-style-type: none"> Condition #4275 <p>PO Issued on 07/29/2015</p>

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 tanker trucks for distribution. The facility operates 24 hours a day, 7 days per week, and 52 weeks per year. Emissions from the facility are primarily volatile organic compounds, the main pollutant of concern.

Permitted sources at this bulk terminal include 16 internal floating roof tanks, 4 underground sumps, 5 truck loading racks, 1 ethanol unloading system, 1 off-specification unloading system,

1 oil-water separator, and 1 emergency diesel generator. The five truck loading racks are abated by a vapor burner (A-2). The oil-water separator is abated by two carbon adsorbers (A-3 and A-4) arranged in series.

Normally, the facility operates the five truck loading racks under bypass mode. Under this operational mode, captured hydrocarbon vapors from the racks accumulate in a vapor holding tank, which has a sealed, expandable inner bladder. The volume of the bladder expands as hydrocarbon vapors enter, until a pre-set level limit is reached. Then hydrocarbon vapors are fed to the thermal oxidizer, and the vapors are combusted to oxidization at high temperature. When the vapor holding tank system malfunctions, the facility operates the racks under direct mode, which means that captured vapors from the racks are directly fed to the thermal oxidizer for control prior to emitting to the atmosphere.

C. Permit Content

The legal and factual basis for the permit follows. The permit sections are described in the order that they are presented in the permit. Changes to the standard permit text will be made since the initial Title V Permit for this site was issued. These changes are reflected in the new proposed permit in strikeout/underline format.

I. Standard Conditions

Section I of the Title V permit 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.

Standard conditions will be updated to reflect current regulation adoption dates and new regulations that have been adopted since the initial Title V permit was issued.

Changes to permit:

- The dates of adoption have been updated to reflect current regulation adoption dates.

II. Equipment

Section II of the Title V permit lists all permitted or significant sources and all abatement (control) devices that control emissions from permitted or significant sources. This section is part of the facility description. It contains information that is necessary for applicability

determinations, such as fuel types and contents or sizes of tanks. This information forms part of the factual basis of the Title V permit.

Permitted sources are those sources that require a BAAQMD operating permit pursuant to BAAQMD Rule 2-1-302, whereas significant sources are sources that are exempt from District permit requirements but have the potential to emit significant sources of pollution (more than 2 tons per year of a “regulated air pollutant,” as defined in BAAQMD Rule 2-6-222, or 400 pounds per year of a “hazardous air pollutant,” as defined in BAAQMD Rule 2-6-210). Each source is identified by an S and a number (e.g., S-1). The permitted sources are listed in Table II A. Each of the permitted sources at this facility has previously been issued a District permit to operate pursuant to the requirements of BAAQMD Regulation 2 (Permits). These District permits to operate are issued in accordance with state law and the District’s regulations. The capacities listed in Table II A are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and BAAQMD Regulation 2-1-403.

Abatement devices are devices that control emissions from a source. Each abatement device whose primary function is to reduce emissions is identified by an A and a number (e.g., A-24). 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 a source (or “S”). The abatement devices are listed in Table II B.

Changes to permit:

- Abatement device A-1 (Vapor Recovery Unit) has been removed from Table II B in the permit as it is no longer operational at SFPP, L.P. as an alternate control device.

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.

This table will be updated to reflect current regulation adoption dates and new regulations that have been adopted since the last Title V permit renewal was issued.

Changes to Permit:

- Standard language was added regarding unpermitted sources and portable equipment covered by ARB registration.
- Table III has been updated to reflect current regulation adoption dates.

IV. Source-Specific Applicable Requirements

Section IV of the Title V permit contains a series of tables that identify the bases of all of the applicable requirements that apply to this facility's permitted sources and unpermitted significant sources (if any). These applicable requirements are imposed on the facility by District, state and federal regulations and/or specific permit conditions. Applicable requirements include monitoring requirements (monitoring is discussed in further detail in Section C.VII of this permit evaluation and statement of basis).

The tables in Section IV provide only citations to rules, regulations and permit conditions. Where the applicable requirement derives from a District or federal regulation, the full text of the regulation can be found on the District or EPA websites. Alternatively, if the applicable requirement derives from a permit condition, all of the permit conditions that apply to this facility are reproduced in full in Section VI of the Title V permit.

In the tables, the citations are listed in the following order:

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

Changes to permit:

- In Table IV-A additional details have been added for the requirements in Regulation 8-33-403 applicable to sources S-21 through S-25 (loading racks).
- In Table IV-A CARB's loading rack certification requirements have been added for sources S-21 through S-25 (loading racks).
- In Table IV-A the applicability of 40 CFR 63 Subpart A (General Provisions) requirements have been identified for sources S-21 through S-25 (loading racks).
- In Table IV-A the semiannual malfunction report requirements in 40 CFR 63 Subpart BBBBBB have been added for sources S-21 through S-25 (loading racks).
- In Table IV-B the semiannual malfunction report requirements in 40 CFR 63 Subpart BBBBBB have been added for sources for several internal floating roof tanks.
- In Table IV-G for fugitive components the Regulation 8-18 requirements that were promulgated in December 2015 have been added.
- In Table IV-G for fugitive components the semiannual malfunction report requirements in 40 CFR 63 Subpart BBBBBB have been added.
- Table IV-H for S-33 (Emergency Diesel Generator) has been updated to include the recently revised Regulation 6, Rule 1 requirements.

Complex Applicability Determinations

112(j) of Clean Air Act:

As shown by the calculations below, the facility-wide emissions for a single hazardous air pollutant (HAP) are less than 10 TPY and the total HAP are less than 25 TPY. Therefore, the facility is not subject to 112(j) of the Clean Air Act because it is not a major source of hazardous air pollutants.

Assumptions:

- The highest emitting scenario at this facility is from storage and loading of gasoline.
- Facility-wide PTE of VOC = 114 TPY
- HAP concentrations by weight in VOC are taken from Table 11.3-2 of EPA's Emission Inventory Improvement Program Volume III, Chapter 11, Gasoline Marketing (Stage I and Stage II), revised January 2001.

Benzene = (0.9%) (114 TPY) = 1.026 TPY
Ethyl Benzene = (0.1%) (114 TPY) = 0.114 TPY
n-hexane = (1.6%) (114 TPY) = 1.824 TPY
Naphthalene = (0.05%) (114 TPY) = 0.057 TPY
Toluene = (1.3%) (114 TPY) = 1.482 TY
2,2,4-Trimethylpentane = (0.8%) (114 TPY) = 0.912 TPY
Xylene = (0.5%) (114 TPY) = 0.57 TPY

Total HAP Emissions = 5.985 TPY

CAM:

The VOC emissions from the gasoline truck racks (S-21 through 25), prior to abatement, exceed 100 tons per year, so the requirements of 40 CFR 64 Compliance Assurance Monitoring (CAM) apply. However, as shown by the calculations below, the abated VOC emissions from S-21

through 25 are less than 100 tons per year, so the facility is required to submit the CAM plan as part of application for a renewal of the Title V permit per §65.5(b).

Basis:

- The facility-wide permitted throughput is 876,000,000 gallons of organic liquid/year per Permit Condition Number 4275.
- The applicable emission standard is 0.04 lb/1,000 gallons of organic liquid loaded per BAAQMD Regulation 8-33-301.2.

$$\begin{aligned} \text{Annual VOC Emissions (after abatement)} &= (876,000,000 \text{ gal/yr}) (0.04 \text{ lb/1,000 gal}) \\ &= 35,040 \text{ lb/yr} = 17.52 \text{ TPY} \end{aligned}$$

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). Per §63.420(a)(1), the facility is exempt from the requirements of Subpart R because E_T , emissions screening factor ($= 0.21$) is < 1.0 . The detailed calculation for E_T as submitted by the facility is in Appendix B.

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).

V. Schedule of Compliance

A schedule of compliance is required in all Major Facility Review 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 SFPP, L.P. is out of compliance with any applicable requirement, the schedule of compliance for this permit contains only BAAQMD Regulations 2-6-409.10.1 and 2-6-409.10.2.

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 have also been deleted due to the following:

- 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:

- The language in BAAQMD Permit Condition #4275 have been updated to include changes made as part of NSR application No. 26848.

VII. Applicable Limits and Compliance Monitoring Requirements

Section VII of the Title V permit is a summary of numerical limits and related monitoring requirements for each source. The summary includes a citation to each applicable monitoring requirement, the frequency of monitoring required, and type of monitoring required. All applicable requirements for monitoring are also listed in Sections IV (Source-Specific Applicable Requirements) and VI (Permit Conditions) of the Title V permit.

As part of the development process for the proposed renewal permit, the District has reviewed all existing monitoring requirements and has determined that the existing requirements imposed on this facility are adequate to provide a reasonable assurance of compliance. Included in this review was a review of emissions limits that apply to this facility but that have no explicit monitoring requirements associated with them. The District has listed these emissions limits in the tables below and has provided an explanation following each table of the District’s reasoning in concluding that adding monitoring is unnecessary. Where the District’s decision rested on the size of a source, the District has provided calculations for the source’s potential to emit.

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.

Although Title V calls for a re-examination of all monitoring prior to the issuance of any Title V permit (including renewals), there is a presumption that these factors were 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 generally will revise the nature or frequency of monitoring only when it can support a conclusion that existing monitoring is inadequate for the purpose of determining compliance with the applicable requirement.

POC Sources

S# & Description	Citation of Limit	Federally Enforceable Emission Limit	Monitoring
S-35, Ethanol Unloading Rack	BAAQMD 8-6-304	0.17 lb/1000 gallons loaded	None
S-36, Off-specification Fuel Unloading Rack	BAAQMD 8-2-301	Total Carbon not more than 15 lb/day & 300 ppm	None

POC Discussion:

S-35, Ethanol Unloading Rack, is used to unload ethanol from trucks to above ground storage tanks. Regulation 8-6-304 limits VOC emissions to 0.17 pounds per 1000 gallons of ethanol loaded. 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 for this emission limit.

S-36, Off-specification Fuel Unloading Rack, is used to unload product (gasoline), which does not meet the specifications (e.g. ethanol concentration), from trucks to above ground storage tanks. Regulation 8-2-301 specifies that total carbon emissions cannot exceed 15 pounds per day and 300 ppm. 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 for this emission limit.

PM Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S-33, EMERGENCY DIESEL GENERATOR	BAAQMD 6-1-303.1 and SIP 6-1-303.1	Ringelmann 2.0 for 3 min. or less/hr	None
S-33, EMERGENCY DIESEL GENERATOR	BAAQMD 6-1-305 and SIP 6-1-305	Visible Particles	None
S-33, EMERGENCY DIESEL GENERATOR	BAAQMD 6-1-310 and SIP 6-1-310	0.15 gr/dscf	None

PM Discussion:

In accordance with the June 24, 1999 “Periodic Monitoring Recommendations for Generally Applicable Requirements” prepared by the CAPCOA/CARB/EPA Region IX periodic monitoring workgroup, no opacity monitoring is required for diesel standby and emergency reciprocating engines. In accordance with the July 2001 “CAPCOA/CARB/EPA Region IX Recommended Periodic Monitoring for Generally Applicable Grain Loading Standards in the SIP: Combustion Sources,” a facility is not required to monitor the engine exhaust from non-utility distillate-oil-fueled emergency piston-type IC engines, but the facility must maintain records of all engine usage. S-33 is a diesel standby engine, so no monitoring is required for these PM limits. However, the facility is required to keep records of the engine usage.

SO₂ Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S-33, EMERGENCY DIESEL GENERATOR	BAAQMD 9-1-301	Ground level concentrations of SO ₂ shall not exceed: 0.5 ppm for 3 consecutive minutes AND 0.25 ppm averaged over 60 consecutive minutes AND 0.05 ppm averaged over 24 hours	None
S-33, EMERGENCY DIESEL GENERATOR	BAAQMD 9-1-304	Liquid fuel ≤ 0.5% wt. sulfur	Fuel Certification

SO₂ Discussion:

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. Therefore, the APCO has not required the facility to have ground level monitoring.

The limit for sources that burn liquid fuel is 0.5% of sulfur by weight in fuel according to BAAQMD Regulation 9-1-304. The standard monitoring for this limit is fuel certification. S-33 will burn California Diesel, which has a maximum sulfur content of 0.0015% by weigh. Therefore, compliance with this standard is expected.

Changes to permit:

- The Regulation 8-18 requirements in Table VII-G for fugitive components has been updated to correspond to the 12/16/2015 revisions of the rule.

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. The test methods are not “applicable requirements” as defined by Regulation 2-6-202.

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

Changes to permit:

- In Table VIII Regulation 8-18 requirements have been updated to correspond to the 12/16/2015 revisions.

IX. Permit Shield

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

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

This facility has no permit shields.

Changes to permit:

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

D. Alternate Operating Scenarios

No alternate operating scenario has been requested for this facility.

Changes to permit:

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

E. Compliance Status

The responsible official for SFPP, L.P. submitted a signed Certification Statement form dated October 30, 2018. On this form, the responsible official certified that the following four statements are true:

Based on information and belief formed after reasonable inquiry, the sources identified in the Applicable Requirements and Compliance Summary form that are in compliance will continue to comply with the applicable requirements;

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

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

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

F. Differences between the Application and the Proposed Permit

The renewal Title V permit application for the Brisbane facility was submitted by SFPP, L.P. on October 30, 2018. This application served as the basis for the District's development of the proposed renewal permit. There are no significant differences between the application and the proposed permit.

APPENDIX A

GLOSSARY

ACT

Federal Clean Air Act

APCO

Air Pollution Control Officer

API

American Petroleum Institute

ARB

Air Resources Board

BAAQMD

Bay Area Air Quality Management District

BACT

Best Available Control Technology

BARCT

Best Available Retrofit Control Technology

C5

An Organic chemical compound with five carbon atoms

C6

An Organic chemical compound with six carbon atoms

CAA

The federal Clean Air Act

CAAQS

California Ambient Air Quality Standards

CAPCOA

California Air Pollution Control Officers Association

CEC

California Energy Commission

CEQA

California Environmental Quality Act

CEM

A "continuous emission monitor" is a monitoring device that provides a continuous direct measurement of some pollutant (e.g. NO_x concentration) in an exhaust stream.

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

CO₂

Carbon Dioxide

Cumulative Increase

The sum of permitted emissions from each new or modified source since a specified date. Used to determine whether threshold-based requirements are triggered.

District

The Bay Area Air Quality Management District

dscf

Dry Standard Cubic Feet

dscm

Dry Standard Cubic Meter

E 6, E 9, E 12

Very large or very small number values are commonly expressed in a form called scientific notation, which consists of a decimal part multiplied by 10 raised to some power. For example, 4.53 E 6 equals $(4.53) \times (10^6) = (4.53) \times (10 \times 10 \times 10 \times 10 \times 10 \times 10) = 4,530,000$. Scientific notation is used to express large or small numbers without writing out long strings of zeros.

EGT

Exhaust Gas Temperature

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 (HAP), and Part 72 (Permits Regulation, Acid Rain), and also 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.

FR

Federal Register

GDF
Gasoline Dispensing Facility

GLC
Ground level concentration.

GLM
Ground Level Monitor

grains
1/7000 of a pound

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 both 40 CFR Part 63, and District Regulation 2, Rule 5.

H₂S
Hydrogen Sulfide

HHV
Higher Heating Value. The quantity of heat evolved as determined by a calorimeter where the combustion products are cooled to 60F and all water vapor is condensed to liquid.

LHV
Lower Heating Value. Similar to the higher heating value (see HHV) except that the water produced by the combustion is not condensed but retained as vapor at 60F.

Major Facility
A facility with potential emissions of regulated air pollutants greater than 100 tons per year, greater than or equal to 10 tons per year of any single hazardous air pollutant, and/or greater than or equal to 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity 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 Act and implemented by District Regulation 2, Rule 6.

MOP
The District's Manual of Procedures.

MSDS
Material Safety Data Sheet

MW
Megawatts

NA
Not Applicable

NAAQS

National Ambient Air Quality Standards

NESHAPS

National Emission Standards for Hazardous Air Pollutants. Contained in 40 CFR Part 61.

NMHC

Non-methane Hydrocarbons

NMOC

Non-methane Organic Compounds (Same as NMHC)

NO_x

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 Act, and implemented by both 40 CFR Part 60 and District Regulation 10.

NSR

New Source Review. A federal program for preconstruction review and permitting of new and modified sources of air pollutants for which the District is classified "non-attainment". Mandated by Title I of the Clean Air Act and implemented by 40 CFR Parts 51 and 52 as well as District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

O₂

The chemical name for naturally-occurring oxygen gas.

Offset Requirement

A New Source Review requirement to provide federally enforceable emission offsets at a specified ratio for the emissions from a new or modified source and any pre-existing cumulative increase minus any onsite contemporaneous emission reduction credits. Applies to emissions of POC, NO_x, PM₁₀, and SO₂.

Phase II Acid Rain Facility

A facility that generates electricity for sale through fossil-fuel combustion and by virtue of certain other characteristics (defined in Regulation 2, Rule 6) is subject to Titles IV and V of the Clean Air Act.

POC

Precursor Organic Compounds

PM

Total Particulate Matter

PM₁₀

Particulate matter with aerodynamic equivalent diameter of less than 10 microns

PSD

Prevention of Significant Deterioration. A federal program for permitting new and modified

sources of air pollutants for which the District is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the Act and implemented by both 40 CFR Part 52 and District Regulation 2, Rule 2.

SCR

A "selective catalytic reduction" unit is an abatement device that reduces NOx concentrations in the exhaust stream of a combustion device. SCRs utilize a catalyst, which operates at a specific temperature range, and injected ammonia to promote the conversion of NOx compounds to nitrogen gas.

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

SO2 Bubble

An SO2 bubble is an overall cap on the SO2 emissions from a defined group of sources, or from an entire facility. SO2 bubbles are sometimes used at refineries because combustion sources are typically fired entirely or in part by "refinery fuel gas" (RFG), a waste gas product from refining operations. Thus, total SO2 emissions may be conveniently quantified by monitoring the total amount of RFG that is consumed, and the concentration of H2S and other sulfur compounds in the RFG.

SO3

Sulfur trioxide

THC

Total Hydrocarbons (NMHC + Methane)

therm

100,000 British Thermal Unit

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)

TRMP

Toxic Risk Management Plan

TSP

Total Suspended Particulate

TVP

True Vapor Pressure

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

Symbols:

<	=	less than
>	=	greater than
≤	=	less than or equal to
≥	=	greater than or equal to

APPENDIX B

40 CFR Subpart R Emissions Screening Factor Calculation

SFPP Brisbane Terminal 40 CFR Subpart R Applicability Calculations

Emissions Screening Factor Calculation for Bulk Gasoline Terminal (E_T)

$$E_T = CF[0.59(T_F)(1-CE) + 0.17(T_E) + 0.08(T_{ES}) + (0.038(T_I) + 8.5 \times 10^{-6}(C) + KQ) + 0.04(OE)]$$

Where,

CF, for bulk gasoline terminals and pipeline breakout stations that do not handle any reformulated or oxygenated gasoline containing 7.6 percent by volume or greater MTBE	0.161
CE, control efficiency limitation on potential to emit for the vapor processing system used to control emissions from fixed-roof gasoline storage vessels	0.95
T_F , total number of fixed-roof gasoline storage vessels without an internal floating roof	0
T_E , total number of external floating roof gasoline storage vessels with only a primary seal	0
T_{ES} , total number of external floating roof gasoline storage vessels with primary and secondary seal	0
T_I , total number of fixed-roof gasoline storage vessels with an internal floating roof	14
C, number of valves, pumps, connectors, loading arm valves, and open-ended lines in gasoline service (obtained from Title V application)	1506
Q, gasoline throughput limitation on potential to emit or gasoline throughput limit (liter/day) (obtained from Title V Permit)	9,084,720
K, $(4.5 \times 10^{-9})(EF+L)$ for bulk gasoline terminals with controlled loading racks	8.01E-08
EF, emission rate limitation on potential to emit for the gasoline cargo tank loading rack vapor processor outlet emissions (mg/L)	4.8
OE, other HAP emissions screening factor for bulk gasoline terminal or pipeline breakout station (tons/yr)	0.15
L, for gasoline cargo tanks meeting the requirement to satisfy the test criteria for a vapor-tight gasoline tank truck (mg/L)	13
E_T, Emissions Screening Factor for Bulk Gasoline Terminal	0.21

APPENDIX C

NSR APPLICATION EVALUATION REPORTS

ENGINEERING EVALUATION
SFPP, LP
Plant: 4021
Application: 26848

BACKGROUND

SFPP, LP (SFPP) has applied for an administrative change of permit conditions for the following equipment:

- S-21 Loading Rack A, 7 Loading Arms Multi-liquid Truck Loading Rack for Gasoline, Ethanol, Jet ‘A’, and Distillate Oil;**
- S-22 Loading Rack B, 7 Loading Arms Multi-liquid Truck Loading Rack for Gasoline, Distillate Oil;**
- S-23 Loading Rack C, 10 Loading Arms Multi-liquid Truck Loading Rack for Gasoline; Ethanol, and Distillate Oil;**
- S-24 Loading Rack D, 5 Loading Arms Multi-liquid Truck Loading Rack for Gasoline and Distillate Oil;**
- S-25 Loading Rack E, 10 Loading Arms Multi-liquid Truck Loading Rack for Gasoline, Ethanol, and Distillate Oil**

The above sources are located at 950 Tunnel Avenue, Brisbane, CA 94005, and are subject to Permit Condition No. 4275.

SFPP is a bulk terminal primarily used for receiving, storing, and shipping a variety of petroleum products, including gasoline, diesel, and jet fuel. The vapor recovery system at the facility consists of A-1, Vapor Storage/Holding Tank, and A-2, Afterburner/Incinerator. Normally, the system operates in polish/bypass mode. Petroleum vapors from the loading racks are first routed to A-1. When the vapors accumulated in A-1 have reached a steady level, the vapors are then routed to A-2 to combust. The vapor storage tank is used to keep the vapor flowing into the afterburner at a steady state, which can enhance the abatement efficiency. In the event that A-1 is not operational, the facility is allowed to operate the vapor recovery system in direct mode according to the current California Air Resources Board (CARB) certificate of the system. In direct mode, vapors from the racks are routed to the afterburner directly.

The five loading racks S-21 through S-25 are currently abated by the direct flame afterburner (A-2), since the vapor storage tank (A-1) is out of service. In this application, SFPP has proposed to bring in a portable vapor bladder on site to provide surge relief to the afterburner. Specifically, the portable vapor bladder which will be brought on site is BAAQMD permitted equipment, S-43 from GEM Mobile Treatment Services (Plant No. 18699)¹. The proposed CARB test scheduled for May 13, 2015 is for certification of the portable vapor bladder for use with SFPP’s existing vapor recovery system (minus their original bladder tank A-1) at the new location (SFPP Brisbane, Plant No. 4021).

¹ The capacity of the portable bladder tank is about 3,300 ft³ and it is housed in a portable shipping container.

SFPP has also proposed to install a variable speed drive controlled by burner temperature feedback at A-2 to adjust the flow rate to the burner, and to install a Maxon propane assist gas pre-mix system or equivalent to ensure that there is always a flammable vapor at the burner.

The proposed changes to permit condition 4275, discussed toward the end of this evaluation report, would provide SFPP operational flexibility and will also not result in an emissions increase.

EMISSION CALCULATIONS

This is an administrative amendment and does not involve any emissions increase. This application is not subject to cumulative increase, toxics, BACT, or offsets.

STATEMENT OF COMPLIANCE

S-21 through S-25, truck loading racks, will continue to comply with Regulation 8-33, Section 301-307, and 309, which require that organic emissions not exceed 0.04 pounds per thousand gallons, the VRU be CARB certified, delivery vehicle requirements including bottom filling, equipment maintained leak free, vapor tight and in good working order, operating practices that minimize emissions, and not exceeding VRU capacity, and that the delivery vehicle gauge pressure not exceed 18 inches of water column during loading operations.

The application is not subject to CEQA since the evaluation is a ministerial action that can be performed using fixed standards and objective measurements outlined in the Permit Handbook Chapter 3.1.

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

NSPS, NESHAPS, and PSD do not apply to this application.

PERMIT CONDITIONS

S-21 through S-25 are subject to Permit Conditions #4275. The conditions will be modified as shown below in underlined/~~strikeout~~ format:

COND# 4275 -----

For S-21, S-22, S-23, S-24 and S-25, Loading Racks
(Revised: Application #993; A# 13405; A# 18159; A
#22718; A# 26848)

1. To demonstrate compliance with all applicable sections of Regulation 8, Rule 33, Santa Fe Pacific Pipelines (SFPP) shall install the following equipment at their facility:
 - a. A sample line from each of the pressure vacuum valves located at the loading racks which is easily accessible by District personnel.
 - b. A 0- to- 30 inch H2O column pressure gauge shall be permanently installed at the vapor manifold of each

loading rack.

- c. ~~e.~~ A hydrocarbon analyzer on the exhaust of the burner. Hydrocarbon concentration in parts per million as propane shall be continuously recorded.
- d. A two-stage high-level vapor holder alarm. First stage shall alarm at a vapor diaphragm height of 31 feet and second stage shall shutdown loading racks at a vapor diaphragm height of 36 feet.
- e. A headspace hydrocarbon monitor shall be installed to measure the concentration above the diaphragm in the vapor holding tank. This monitor shall measure hydrocarbon concentrations from 0- to 6,000 parts per million, as methane, and shall be recorded.

~~f. If whenever a portable vapor bladder is in service, the owner/operator shall measure and record the hydrocarbon concentration in the headspace of the tank (portable shipping container, etc.) housing the vapor bladder at least shall be measured and recorded no less than once per week with by either a a District approved hand held monitor or an equivalent District approved procedure.~~

The monitoring equipment installed pursuant to 1c ~~, and 1e, and 1f~~ above shall be subject to the procedures set forth in District Regulation 1, Section 522 with the exception of Regulation 1-522.5. All monitors shall be calibrated weekly. In case of monitor breakdown, the monitor shall be repaired as soon as possible and within 15 days.
(basis: Regulation 8-33-308)

2. In no case shall the headspace above the diaphragm of the vapor holding tank ~~or in the headspace of the tank (or shipping container) housing the BAAQMD permitted portable vapor bladder~~ exceed 3000 PPM as methane or 6% of the Lower Explosive Limit. (basis: Regulation 8-33-308)

3. Loading of gasoline at the facility shall be limited to direct mode operation when:
a. The vapor holder is out of service for any reason, ~~and if a portable vapor bladder is not operating on site.~~
~~and or~~ b. The vapor bladder exceeds a height of thirty-six (36) feet.
(basis: Regulation 8-33-301)

4. SFPP shall not load gasoline at this facility whenever the vapor burner and vapor bladder are not fully operational for any reason, ~~unless a BAAQMD permitted portable vapor combustor is utilized in lieu of the primary system burner.~~ (basis: Regulation 8-33-301, 8-33-308)

5. The vapor recovery system shall be operated such that the concentration of hydrocarbon vapor in the exhaust stream from the burner does not exceed 120 parts per

million (PPM) as propane when averaged over a six hour period. This 120 PPM value will be adjusted, if necessary, to comply with Regulation 8, Rule 33. (basis: Regulation 8-33-301)

6. SFPP shall not exceed any of the following material throughput limits:
 - a. 2,400,000 gallons per day of gasoline.
 - b. 250,000 gal/hr of gasoline or current CARB certified hourly throughput (Polish/By-pass Mode).
 - c. 100,000 gal/hr of gasoline or current CARB certified hourly throughput (Direct Mode).
 - d. 876,000,000 gallons of all materials per consecutive 12-month period. (basis:cumulative increase)
7. All equipment at this facility, which is subject to Regulation 8, Rule 33, shall be maintained in good operating condition at all times. (basis: Regulation 8-33-305)
8. All maintenance records for the vapor holder tank ~~and or the BAAQMDthe~~ permitted portable vapor bladder tank at this facility shall be kept on site for five years from date of entry and be made available to the District staff upon request. (Basis: Record keeping)
9. ~~9.~~ To demonstrate compliance with part 6, the hourly (average), daily, and monthly material throughput shall be recorded and maintained in a District approved logbook. These records shall be kept on site for at least five years from the date on which a record is made and be made available to the District staff for inspection. (basis: cumulative increase)
10. Deleted (Start-up source test conducted on March 11, 2011)
10. The owner/operator shall operate A-2 at 500 degree Fahrenheit or above to demonstrate compliance with Part 5 and Regulation 8-33-301 at all times when A-2 is abating the loading racks. (basis: Regulation 8-33-301)
11. The temperature limit in Part ~~104~~ shall not apply during an "Allowable Temperature Excursion" provided that the temperature controller setpoint complies with the temperature limit. An Allowable Temperature Excursion is one of the following:
 - a. A temperature excursion not exceeding 20 degree Fahrenheit; or
 - b. A temperature excursion for a period or periods which when combined are less than 15 minutes in any hour; or
 - c. A temperature excursion for a period or periods which when combined are more than 15 minutes in any hour, provided that all three of the following criteria are met.

- 1) the excursion does not exceed 50 degree Fahrenheit;
 - 2) the duration of the excursion does not exceed 24 hours;
 - 3) the total number of such excursion does not exceed 12 per consecutive 12-month period.
12. ~~For A-2, F~~two or more excursion greater than 15 minutes ~~in during~~ occurring during the same 24-hour period shall be counted as one excursion toward the 12-excursion limit. (basis: Regulation 2-1-403)
13. ~~For A-2, F~~for each Allowable Temperature Excursion that exceeds 20 degree Fahrenheit and 15 minutes in duration, the owner/operator shall keep sufficient records to demonstrate that they meet the qualifying criteria described above in Part 12. Records shall be retained for a minimum period of two years from the date of data entry, and shall be made available to the District staff for inspection. Records shall include at least the following information:
- a. Temperature controller setpoint; b. Starting date and time, and duration of each Allowable Temperature Excursion; c. Measured temperature during each Allowable Temperature Excursion; d. Number of Allowable Temperature Excursion per month, and total number for the consecutive 12-month period; and e. All other temperature records. (basis: Regulation 2-1-403)
14. For the purposes of Parts 12 and 13, a temperature excursion refers only to temperature below the limit. (basis: Regulation 2-1-403)
15. The owner/operator shall equip A-2 with a District approved continuous temperature monitoring and recording device to demonstrate compliance with Parts 10 and 11. Records of operating temperature shall be kept on site for at least five years from the date on which a record is made. (basis: Regulation 2-1-403)

End of Conditions

RECOMMENDATION

Amend permit condition 4275 as proposed and issue SFPP Authorities to Construct for the following equipment:

- S-21 Loading Rack A, 7 Loading Arms Multi-liquid Truck Loading Rack for Gasoline, Ethanol, Jet 'A', and Distillate Oil;**
- S-22 Loading Rack B, 7 Loading Arms Multi-liquid Truck Loading Rack for Gasoline, Distillate Oil;**
- S-23 Loading Rack C, 10 Loading Arms Multi-liquid Truck Loading Rack for Gasoline; Ethanol, and Distillate Oil;**
- S-24 Loading Rack D, 5 Loading Arms Multi-liquid Truck Loading Rack for Gasoline and Distillate Oil;**
- S-25 Loading Rack E, 10 Loading Arms Multi-liquid Truck Loading Rack for Gasoline, Ethanol, and Distillate Oil**

Prepared by: _____

Date: _____

Ying Yu, Air Quality Technician