San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

DEC 3 1 2019

Mr. Jeff Beecher
San Joaquin Refining Company Inc
PO Box 5576
Bakersdfield, CA 93388

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
Facility Number: S-36
Project Number: S-1190998

Dear Mr. Beecher:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. You requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The project authorizes installation of three (3) tanks.

The notice of preliminary decision for this project has been posted on the District's website (www.valleyair.org). After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authority to Construct with a Certificate of Conformity. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice. Prior to operating with modifications authorized by the Authority to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

Sincerely,

Arnaud Marjollet
Director of Permit Services

Enclosures

cc: Courtney Graham, CARB (w/enclosure) via email
cc: Gerardo C. Rios, EPA (w/enclosure) via EPS

Samir Sheikh
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

www.valleyair.org www.healthyairliving.com

San Joaquin Valley Air Pollution Control District
Authority to Construct
Three New Internal Floating Roof Storage Tanks

Facility Name:	San Joaquin Refining Company Inc	Date:	December 18, 2019
Mailing Address:	PO Box 5576	Engineer:	Richard Edgehill
	Bakersfield, CA 93388	Lead Engineer:	Richard Karrs
Contact Person:	Jeff Beecher and Joe Selgrath		
Telephone:	(661) 432-7392 (JB), (661) 377-0073 #12 (JS, office), 330-1461 (JS, cell)		
Application #(s):	S-36-120-0 thru '-122-0		
Project #:	1190998		
Deemed Complete:	March 4, 2019		

I. Proposal

San Joaquin Refining Company Inc (SJR) has requested Authorities to Construct (ATCs) for the installation of three (3) 17,000 bbl internal floating roof tanks used to store heavy crude oil. A truck unloading rack for the heavy crude oil will also be constructed but is exempt from permit pursuant to Section 6.7.1.2 of District Rule 2020.

6.7.1.2 Used exclusively for the transfer of:

6.7.1.2.2 Crude oil with 0.8762 specific gravity or higher (30°API or lower) as measured by test method API 2547, ASTM D-1298, or ASTM D287 and the crude oil has TVP less than 1.5 psia at the storage container's maximum organic liquid storage temperature.

The project results in an increase in VOC emissions triggering a Federal Major Modification. BACT, offsets, and public notice are required.

SJR is a major stationary source with a Title V permit. SJR facility S-36 operates under a Title V Permit. The project is a Federal Major Modification and therefore it is classified as a Title V Significant Modification pursuant to Rule 2520, Section 3.20, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. SJR must apply to administratively amend their Title V Operating Permit to include the requirements of the ATC(s) issued with this project.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (2/18/16)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 4001	New Source Performance Standards (4/14/99).
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)

Rule 4623	Storage of Organic Liquids (5/19/05)
CH&SC 41700	Health Risk Assessment
CH&SC 42301.6	School Notice

III. Project Location

The new tanks will be located at the refinery at the corner of Standard and Shell Street, Bakersfield. The tanks will not be located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

SJR is a heavy crude oil refinery that produces various products such as asphalt and ultra-low sulfur diesel. The proposed tanks will store heavy crude oil (TVP < 0.5 psia).

A Plot Plan showing the tanks is included in **Attachment I**.

V. Equipment Listing

S-36-120-0: 714,000 GALLON WELDED INTERNAL FLOATING ROOF CRUDE OIL STORAGE TANK WITH MECHANICAL SHOE PRIMARY SEAL AND SECONDARY WIPER SEAL TANK

S-36-121-0: 714,000 GALLON WELDED INTERNAL FLOATING ROOF CRUDE OIL STORAGE TANK WITH MECHANICAL SHOE PRIMARY SEAL AND SECONDARY WIPER SEAL TANK

S-36-122-0: 714,000 GALLON WELDED INTERNAL FLOATING ROOF CRUDE OIL STORAGE TANK WITH MECHANICAL SHOE PRIMARY SEAL AND SECONDARY WIPER SEAL TANK

VI. Emission Control Technology Evaluation

The tank, converted to fixed roof in this project, will be equipped with a pressure-vacuum (PV) relief vent valve set to within 10% of the maximum allowable working pressure of the tank. The PV-valve will reduce VOC wind induced emissions from the tank vent.

VII. General Calculations

A. Assumptions

- Tanks will operate 24 hours per day, 7 days per week, and 52 weeks per year.
- VOC is the only pollutant emitted.
- Throughput (Q): 13,000 bbl/day, 4,745,000 bbl/yr
- Crude oil tvp = 0.5 psia
- Tank diameter (D): 71 ft
- Tank height (H): 16.1 ft bolted deck

B. Emission Factors

Internal Floating Roof

Floating Roof Parameters (see **Attachment II** Spreadsheet for Additional Calculations)

Clingage factor (Cs): 0.006 (light rust crude oil)
Molecular weight vapors (Mv): 100 lb/lbmol
Liquid Density (W_L): 8.1 lb/gal
Product factor (Kc) = 0.4 (crude oil)
Number of fixed roof supporting columns (Nc): 1 (proposed)
Effective column diameter (Fc): = column perimeter/π,
= 1 as column construction details unknown
Vapor Pressure Function

$P^* = P/Pa/ [1+ (1 – P/Pa)^{0.5}))^2$
$= 0.5/14.7/[1 + (1 – 0.5/14.7)^{0.5}]^2$
$= 0.00865$

Rim Seal Losses

$L_R = (K_{Ra} + K_{Rb} v^n)DP^*M_VK_C$

Rim seal factor (K_{Ra}): 0.6 (rim mounted secondary seal)
V= 0 (internal floating roof)

Deck Seam Losses

$L_D = K_DS_DD^2P^*M_VK_C$

Deck seam factor (K_D): 0.14 (bolted deck)
Deck seam length factor (S_L): 0.33 (rectangular panels)

Deck Fitting Losses

$L_F = FP^*MvKc$

Calculated using assumed information listed in table below (from AP-42 Table 7.1-12)

Roof Fitting	Kfi	Number (N)	F = N x Kfi
Access Hatch	1.6 (bolted cover, ungasketed)	1 Table 7.1-12	1.6
Gauge Float Well	2.8 (bolted cover, gasketed)	1 Table 7.1-12	2.8
Column Wells	10 (round pipe flexible fabric sleeve seal)	1 (Nc) Table 7.1-11	10
Ladder Wells	56 (sliding cover gasketed)	1 Table 7.1-12	56
Roof (deck) leg or hanger leg	0 (fixed)	21	0
Slotted - Guidepole Sample Pipes or Wells	43 (ungasketed or gasketed sliding cover)	1 Table 7.1-12 Optional fitting	43
Stub Drains	1.2 (1 in diameter)	40 Table 7.1-15 $D^2/125$ = $71^2/125 = 40.3$	48
Vacuum Breaker	6.2 (weighted mechanical actuation, gasketed)	1	6.2
Total (F)			167.6

C. Calculations

1. Pre-Project Potential to Emit (PE1)

S-36-120-0 thru '-122-0

PE1 = 0 as the tanks are new.

2. Post Project Potential to Emit (PE2)

S-36-120-0 thru '-122-0 (each)

Deck Fitting Loss L_F = FP*MvKc
= 167.6 (0.00865)*(100)(0.4)
= 58.0 lb/yr

Withdrawal Loss = 0.943 Q $C_S W_L$/D x [1 + NcFc/D]
= 0.943 (6,205,000)(0.006)(8.1)/71 x [1 + 1(1.0)/71]
= 4061.68 lb/yr

Rim Seal Loss (L_R) = K_{Ra} DP*MvKc
= 0.6(71)(0.00865)(100)(0.4)
= 24.57 lb/yr

Deck seam losses (L_D) = $K_D S_D D^2$ P*MvKc
= 0.14(0.33)$(71)^2$ (0.00865)(100)(0.4)

= 80.59 lb/yr

Total Loss = 58.0 + 4061.68 + 24.57 + 80.59
= 4,224.84 lb/yr

Applicant Spreadsheet result, 4,224.84 lb/yr (email, 4-26-19, Spreadsheet, **Attachment II**)

Daily Emissions

VOC = 4,224.84 lb/yr/365 = 11.6 lb/day

Permit Unit	VOC - Daily PE2 (lb/day)	VOC - Annual PE2 (lb/Year)
S-36-120 thru '-122	11.6	4,225

Emissions Profiles are included in **Attachment III**.

3. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to Section 4.9 of District Rule 2201, the Pre-Project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

Pre-Project Stationary Source Potential to Emit [SSPE1] (lb/year)*					
Permit Unit	NOx	SOx	PM_{10}	CO	VOC
Pre-Project SSPE (SSPE1)	82,997	96,427	26,179	457,584	43,213

*project 1170829, the latest project in PAS

4. Post Project Stationary Source Potential to Emit (SSPE2)

Pursuant to Section 4.10 of District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

SSPE2 (lb/year)					
Permit Unit	**NO_X**	**SO_X**	**PM_{10}**	**CO**	**VOC**
Pre-Project SSPE (SSPE1)	82,997	96,427	26,179	457,584	43,213
S-36-120-0	0	0	0	0	4,225
S-36-121-0					4,225
S-36-122-0	0	0	0	0	4,225
SSPE2	82,997	96,427	26,179	457,584	55,888

5. Major Source Determination

Rule 2201 Major Source Determination:

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status the following shall not be included:

- any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

Rule 2201 Major Source Determination (lb/year)						
	NO_X	**SO_X**	**PM_{10}**	**$PM_{2.5}$**	**CO**	**VOC**
SSPE1	82,997	96,427	26,179	26,179	457,584	43,213
SSPE2	82,997	96,427	26,179	26,179	457,584	55,888
Major Source Threshold	20,000	140,000	140,000	140,000	200,000	20,000
Major Source?	Yes	No	No	No	Yes	Yes

Note: PM2.5 assumed to be equal to PM10

As seen in the table above, the facility is an existing Major Source for NOx, CO, and VOC.

Rule 2410 Major Source Determination:

The facility or the equipment evaluated under this project is listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii).

a. petroleum refineries,

Therefore, the PSD Major Source threshold is 100 tpy for any regulated NSR pollutant.

PSD Major Source Determination (tons/year)						
	NO2	**VOC**	**SO2**	**CO**	**PM**	**PM10**
Estimated Facility PE before Project Increase	41.5	22	48	229	13	13
PSD Major Source Thresholds	100	100	100	100	100	100
PSD Major Source ? (Y/N)	N	N	N	Y	N	N

As shown above, the facility is an existing PSD major source for at least one pollutant.

6. Baseline Emissions (BE)

The BE calculation (in lb/year) is performed pollutant-by-pollutant for each unit within the project to calculate the QNEC, and if applicable, to determine the amount of offsets required.

Pursuant to District Rule 2201, BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to District Rule 2201.

The tanks are new and therefore BE = 0.

7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

Since this facility is a major source for VOCs, the project's PE2 is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if the SB 288 Major Modification calculation is required.

SB 288 Major Modification Thresholds			
Pollutant	**Project PE2 (lb/year)**	**Threshold (lb/year)**	**SB 288 Major Modification Calculation Required?**
NO_x	0	50,000	No
SO_x	0	80,000	No
PM_{10}	0	30,000	No
VOC	12,675	50,000	No

Since none of the SB 288 Major Modification Thresholds are surpassed with this project, this project does not constitute an SB 288 Major Modification.

8. Federal Major Modification

District Rule 2201 states that a Federal Major Modification is the same as a "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA.

For new emissions units, the increase in emissions is equal to the PE2 for each new unit included in this project.

Federal Major Modification Thresholds for Emission Increases			
Pollutant	**Total Emissions Increases (lb/yr)**	**Thresholds (lb/yr)**	**Federal Major Modification?**
NO_x*	0	0	No
VOC*	12,675	0	Yes
PM_{10}	NA	30,000	No
$PM_{2.5}$	NA	20,000	No
SO_x	NA	80,000	No

*If there is any emission increases in NO_x or VOC, this project is a Federal Major Modification and no further analysis is required.

Since there is an increase in VOC emissions, this project constitutes a Federal Major Modification and no further analysis is required.

Federal Offset Quantities:

The Federal offset quantity is calculated only for the pollutants for which the project is a Federal Major Modification. The Federal offset quantity is the sum of the annual emission changes for all new and modified emission units in a project calculated as the potential to emit after the modification (PE2) minus the actual emissions (AE) during the baseline period for each emission unit times the applicable federal offset ratio. There are no special calculations performed for units covered by an SLC.

Only pollutants for which the project is a Federal Major Modification have Federal offset quantities. The calculated Federal offset quantity, listed in the table below, is entered into the Major Modification tracking spreadsheet under the heading "Federal Offset Quantity."

VOCs **Federal Offset Ratio** **1.5**

Permit No.	Actual Emissions (lb/year)	Potential Emissions (lb/year)	Emissions Change (lb/yr)
S-36-81	**0**	**12,675**	**12,675**
		Net Emission Change (lb/year):	**12,675**
		Federal Offset Quantity: (NEC * 1.5)	**19,013**

9. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The pollutants which must be addressed in the PSD applicability determination for sources located in the SJV and which are emitted in this project are: (See 52.21 (b) (23) definition of significant)

- Hydrogen sulfide (H2S)
- Total reduced sulfur (inlcuding H2S)
- Reduced sulfur compounds

As demonstrated in the "PSD Major Source Determination" Section above, the facility was determined to be a existing PSD Major Source. Because the project is not located within 10 km (6.2 miles) of a Class 1 area – modeling of the emission increase is not required to determine if the project is subject to the requirements of Rule 2410.

I. Project Emission Increase – Significance Determination

a. Evaluation of Calculated Post-project Potential to Emit for New or Modified Emissions Units vs PSD Significant Emission Increase Thresholds

As a screening tool, the post-project potential to emit from all new and modified units is compared to the PSD significant emission increase thresholds, and if the total potentials to emit from all new and modified units are below the applicable thresholds, no futher PSD analysis is needed.

PSD Significant Emission Increase Determination: Potential to Emit (tons/year)					
	NO_2	SO_2	CO	PM	PM_{10}
Total PE from New and Modified Units	0	0	0	0	0
PSD Significant Emission Increase Thresholds	40	40	100	25	15
PSD Significant Emission Increase?	N	N	N	N	N

As demonstrated above, because the post-project total potentials to emit from all new and modified emission units are below the PSD significant emission increase thresholds, this project is not subject to the requirements of Rule 2410 and no further discussion is required.

10. Quarterly Net Emissions Change (QNEC)

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC shall be calculated as follows:

QNEC = PE2 - BE, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.
PE2 = Post Project Potential to Emit for each emissions unit, lb/qtr.
BE = Baseline Emissions (per Rule 2201) for each emissions unit, lb/qtr.

Using the values in Sections VII.C.2 and VII.C.6 in the evaluation above, quarterly PE2 and quarterly BE can be calculated as follows:

S-36-120-0 thru '-122-0 (each)

Quarterly Net Emissions Change (QNEC) (lbs/year)					
	NO2	SOx	PM10	CO	VOC
ΔPE(lb/yr)	0	0	0	0	4,225
QNEC = ΔPE/4	0	0	0	0	1056.25

VIII. Compliance Determination

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions*:

a. Any new emissions unit with a potential to emit exceeding two pounds per day,
b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

a. New emissions units – PE > 2 lb/day

As seen in Section VII.C.2 above, the applicant is proposing to install three new internal floating roof tanks each with a PE greater than 2 lb/day for VOC. Therefore, BACT is triggered for VOCs.

b. Relocation of emissions units – PE > 2 lb/day

As discussed in Section I above, there are no emissions units being relocated from one stationary source to another; therefore, BACT is not triggered.

c. Modification of emissions units – AIPE > 2 lb/day

As discussed in Section I above, there are no modified emissions units associated with this project. Therefore BACT is not triggered.

d. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project constitutes a Federal Major Modification for VOC emissions. Therefore, BACT is triggered.

Per District Policy APR 1305, Section IX, "A top-down BACT analysis shall be performed as a part of the Application Review for each application subject to the BACT requirements pursuant to the District's NSR Rule for source categories or classes covered in the BACT Clearinghouse, relevant information under each of the following steps may be simply cited from the Clearinghouse without further analysis."

2. BACT Guideline

BACT Guideline 7.3.3 applies to floating roof organic liquid storage tanks ≥471 bbl and ≥0.5 psia TVP. (See **Attachment IV**)

3. Top-Down BACT Analysis

Per Permit Services Policies and Procedures for BACT, a Top-Down BACT analysis shall be performed as a part of the application review for each application subject to the BACT requirements pursuant to the District's NSR Rule.

Pursuant to the attached Top-Down BACT Analysis (see **Attachment V**), BACT has been satisfied with the following:

VOC: 95% Control (Primary metal shoe seal with secondary wiper seal, or equal)

B. Offsets

1. Offset Applicability

Offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the SSPE2 equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

The SSPE2 is compared to the offset thresholds in the following table.

Offset Determination (lb/year)					
	NO_X	**SO_X**	**PM_{10}**	**CO**	**VOC**
SSPE2	82,997	96,427	26,179	457,584	55,888
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets calculations required?	Yes	Yes	No	Yes	Yes

2. Quantity of Offsets Required

As seen above, the SSPE2 is greater than the offset thresholds for VOC. Therefore offset calculations will be required for this project.

VOC (Each Tank)

The quantity of offsets in pounds per year for VOC is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) = (Σ[PE2 – BE] + ICCE) x DOR, for all new or modified emissions units in the project,

Where,

PE2 = Post Project Potential to Emit, (lb/year)
BE = Baseline Emissions, (lb/year)
ICCE = Increase in Cargo Carrier Emissions, (lb/year)
DOR = Distance Offset Ratio, determined pursuant to Section 4.8

The facility is proposing to install a new emissions unit; therefore BE = 0

Offsets Required (lb/year) = ([PE2 – BE] + ICCE) x DOR

PE2 (VOC) = 4,225 lb/year
BE (VOC) = 0 lb/year
ICCE = 0 lb/year

The project is a Federal Major Modification and therefore the correct offset ratio for VOC is 1.5:1.

Assuming an offset ratio of 1.5:1, the amount of VOC ERCs that need to be withdrawn is:

Offsets Required (lb/year) = ([4,225 – 0] + 0) x 1.5
= 4,225 x 1.5
= 6,338 lb VOC/year

Calculating the appropriate quarterly emissions to be offset is as follows:

Quarterly offsets required (lb/qtr) = (6,338 lb VOC/year) ÷ (4 quarters/year)
= 1,584.5 lb/qtr (each of three tanks)

As shown in the calculation above, the quarterly amount of offsets required for this project, when evenly distributed to each quarter, results in fractional pounds of offsets being required each quarter. Since offsets are required to be withdrawn as whole pounds, the quarterly amounts of offsets need to be adjusted to ensure the quarterly values sum to the total annual amount of offsets required.

To adjust the quarterly amount of offsets required, the fractional amount of offsets required in each quarter will be summed and redistributed to each quarter based on the number of days in each quarter. The redistribution is based on the Quarter 1 having the fewest days and the Quarters 3 and 4 having the most days. The redistribution method is summarized in the following table:

Redistribution of Required Quarterly Offsets (where X is the annual amount of offsets, and X ÷ 4 = Y.z)				
Value of z	**Quarter 1**	**Quarter 2**	**Quarter 3**	**Quarter 4**
.0	Y	Y	Y	Y
.25	Y	Y	Y	Y+1
.5	Y	Y	Y+1	Y+1
.75	Y	Y+1	Y+1	Y+1

Therefore the appropriate quarterly emissions to be offset are as follows:

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total Annual
1,584	1,584	1,585	1,585	6,338

The amount of offsets reserved for the project (three tanks) are as follows:

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total Annual
4,752	4,752	4,755	4,755	19,014

The applicant has stated that the facility plans to use ERC certificate S-4910-1 to offset the increases in VOC emissions associated with this project. The above certificate has available quarterly VOC credits as follows:

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
ERC #S-4910-1	33,091	27,806	31,888	37,172

As seen above, the facility has sufficient credits to fully offset the quarterly VOC emissions increases associated with this project.

Proposed Rule 2201 (offset) Conditions:

- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter – 1,584 lb, 2nd quarter – 1,584 lb, 3rd quarter – 1,585 lb, and fourth quarter – 1,585 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]

- ERC Certificate Number S-4910-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

3. ERC Withdrawal Calculations

The applicant must identified ERC Certificates to be used to offset the increase of emissions for the project. As indicated in previous section, the applicant is proposing to use an ERC certificate to mitigate the increase of VOC emissions associated with this project. See **Attachment VI** for detailed ERC Withdrawal Calculations.

C. Public Notification

1. Applicability

Public noticing is required for:
a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
c. Any project which results in the offset thresholds being surpassed,
d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant, and/or
e. Any project which results in a Title V significant permit modification

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications

As demonstrated in Sections VII.C.7 and VII.C.8, this project is a Federal Major Modification. Therefore, public noticing for Federal Major Modification purposes is required.

b. PE > 100 lb/day

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. As seen in Section VII.C.2 above, this project does not include a new emissions unit which has daily emissions greater than 100 lb/day for any pollutant, therefore public noticing for PE > 100 lb/day purposes is not required.

c. Offset Threshold

The SSPE1 and SSPE2 are compared to the offset thresholds in the following table.

Offset Thresholds				
Pollutant	**SSPE1 (lb/year)**	**SSPE2 (lb/year)**	**Offset Threshold**	**Public Notice Required?**
NO_X	82,997	82,997	20,000 lb/year	No
SO_X	96,427	96,427	54,750 lb/year	No
PM_{10}	26,179	26,179	29,200 lb/year	No
CO	457,584	457,584	200,000 lb/year	No
VOC	43,213	55,888	20,000 lb/year	No

As detailed above, there were no thresholds surpassed with this project; therefore public noticing is not required for offset purposes.

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a SSIPE of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE = SSPE2 – SSPE1. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table.

SSIPE Public Notice Thresholds					
Pollutant	**SSPE2 (lb/year)**	**SSPE1 (lb/year)**	**SSIPE (lb/year)**	**SSIPE Public Notice Threshold**	**Public Notice Required?**
NO_X	82,997	82,997	0	20,000 lb/year	No
SO_X	96,427	96,427	0	20,000 lb/year	No
PM_{10}	26,179	26,179	0	20,000 lb/year	No
CO	457,584	457,584	0	20,000 lb/year	No
VOC	55,888	43,213	12,675	20,000 lb/year	No

As demonstrated above, the SSIPEs for all pollutants were less than 20,000 lb/year; therefore public noticing for SSIPE purposes is not required.

e. Title V Significant Permit Modification

As shown in the Discussion of Rule 2520 below, this project constitutes a Title V significant modification. Therefore, public noticing for Title V significant modifications is required for this project.

2. Public Notice Action

As discussed above, public noticing is required for this project for Federal Major Modification and Title V Significant Permit Modification purposes. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and a

public notice will be published in a local newspaper of general circulation prior to the issuance of the ATC for this equipment.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

Each Tank

For each tank, the DELs are stated in the form of emission factors (lb/day), daily throughput, annual throughput, and maximum TVP of stored liquids.

Proposed Rule 2201 (DEL) Conditions:

Maximum throughput of tank shall not exceed 17,000 bbl/day. [District Rule 2201] Y

This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Y

E. Compliance Assurance

1. Source Testing

No source testing required.

2. Monitoring

No monitoring required.

3. Recordkeeping

Permittee shall maintain accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 4623] Y

Permittee shall maintain accurate records of average daily throughput of tank. [District Rule 2201] Y

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

An AAQA shall be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. There are no AAQA standards for VOCs and therefore an AAQA is not required.

G. Compliance Certification

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Federal Major Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed in Section VIII above, this facility is a new major source and this project does constitute a Federal Major Modification, therefore this requirement is applicable. SJR's compliance certification is included in **Attachment VII**.

H. Alternate Siting Analysis

The current project occurs at an existing facility. The applicant proposes to modify a tank. Since the project modification will be used at the same location, the existing site will result in the least possible impact from the project. Alternative sites would involve the relocation and/or construction of various support structures on a much greater scale, and would therefore result in a much greater impact.

Rule 2410 Prevention of Significant Deterioration

As shown in Section VII. C. 9. above, this project does not result in a new PSD major source or PSD major modification. No further discussion is required.

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. Section 3.29 defines a significant permit modification as a "permit amendment that does not qualify as a minor permit modification or administrative amendment."

The project is Federal Major Modification and therefore is also a Title V Significant Modification. As discussed above, the facility has applied for a Certificate of Conformity (COC); therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The Title V Compliance Certification form is included in **Attachment VII**.

Rule 4001 New Source Performance Standards (NSPS)

40 CFR Part 60, Subpart Kb: Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

Pursuant to 40 CFR Part 60 Section 60.110b(a), *Applicability And Designation Of Affected Facility*, except as provided in paragraph (b) of this section, the affected facility to which this

subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m^3) (equivalent to 19,813 gal) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.

Pursuant to 40 CFR Part 60 Section 60.110b(b), this subpart does not apply to:

(a) storage vessels with a capacity greater than or equal to 151 m^3 (equivalent to 39,890 gal) storing a liquid with a maximum True Vapor Pressure (TVP) less than 3.5 kilopascals (kPa) (equivalent to 0.5 psi) or

(b) with a capacity greater than or equal to 75 m^3 (equivalent to 19,813 gal) but less than 151 m^3 (equivalent to 39,890 gal) storing a liquid with a maximum true vapor pressure less than 15.0 kPa (equivalent to 2.2 psi).

The capacity of the tanks are 714,000 gallons and they will store orgnic liquids with a true vapor pressure less than 0.5 psia, the requirements of this subpart does not apply to the tanks.

Rule 4002 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63. However, no subparts of 40 CFR Part 61 or 40 CFR Part 63 apply to the operations listed in this project.

Rule 4101 Visible Emissions

Rule 4101 states that no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). As the heater is fired solely on natural gas, visible emissions are not expected to exceed Ringelmann 1 or 20% opacity.

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, compliance with this rule is expected.

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – *Risk Management Policy for Permitting New and Modified Sources* specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

An HRA is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (**Attachment VIII**), the total facility

prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

The cancer risk for this project is shown below:

HRA Summary		
Unit	**Cancer Risk**	**T-BACT Required**
S-36-120-0 through '-122-0	0.476 per million	No

Discussion of T-BACT

BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As demonstrated above, T-BACT is not required for this project because the HRA indicates that the risk is not above the District's thresholds for triggering T-BACT requirements; therefore, compliance with the District's Risk Management Policy is expected.

Rule 4623 Storage of Organic Liquids

The purpose of this rule is to limit volatile organic compound (VOC) emissions from the storage of organic liquids. This rule applies to any tank with a design capacity of 1,100 gallons or greater used to store organic liquid with a true vapor pressure (TVP) of 0.5 psia or greater.

According to Section 4.4, tanks exclusively receiving and/or storing organic liquids with a TVP less than 0.5 psia are exempt from this Rule except for complying with Sections 6.2, 6.3.6, 6.4 and 7.2. Therefore, the following conditions shall be placed on the ATC:

- *This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) off less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623]*
- *Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank upon initial start-up, at least once every 24 months during summer (July – September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2201 and 4623]*
- *The permittee shall conduct API gravity testing upon initial start-up. [District Rules 4623]*
- *The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623]*
- *For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rules 2201 and 4623]*

- *The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rules 2201 and 4623]*

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Environmental Quality Act (CEQA)

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The District adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Greenhouse Gas (GHG) Significance Determination

District is a Lead Agency & Facility is Subject to Cap-and-Trade

It is determined that no other agency has prepared or will prepare an environmental review document for the project. Thus the District is the Lead Agency for this project.

On December 17, 2009, the District's Governing Board adopted a policy, APR 2005, *Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency,* for addressing GHG emission impacts when the District is Lead Agency under CEQA and approved the District's guidance document for use by other agencies when addressing GHG impacts as lead agencies under CEQA. Under this policy, the District's determination of significance of project-specific GHG emissions is founded on the principal that projects with GHG emission reductions consistent with AB 32 emission reduction targets are considered to have a less than significant impact on global climate change. Consistent with District Policy 2005, projects complying with an approved GHG emission reduction plan or GHG mitigation program, which avoids or substantially reduces GHG emissions within the geographic area in which the project is

located, would be determined to have a less than significant individual and cumulative impact for GHG emission.

The California Air Resources Board (ARB) adopted a Cap-and-Trade regulation as part one of the strategies identified for AB 32. This Cap-and-Trade regulation is a statewide plan, supported by a CEQA compliant environmental review document, aimed at reducing or mitigating GHG emissions from targeted industries. Facilities subject to the Cap-and-Trade regulation are subject to an industry-wide cap on overall GHG emissions. Any growth in emissions must be accounted for under that cap such that a corresponding and equivalent reduction in emissions must occur to allow any increase. Further, the cap decreases over time, resulting in an overall decrease in GHG emissions.

Under District policy APR 2025, *CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation*, the District finds that the Cap-and-Trade is a regulation plan approved by ARB, consistent with AB32 emission reduction targets, and supported by a CEQA compliant environmental review document. As such, consistent with District Policy 2005, projects complying with Cap-and-Trade requirements are determined to have a less than significant individual and cumulative impact for GHG emissions.

Industries covered by Cap-and-Trade are identified in the regulation under section 95811, Covered Entities:

1. Group 1: Large industrial facilities

   These types of facilities are subject to Cap and Trade, and the specific companies covered are listed at http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm, Section 95811 (a), under the "Publicly Available Market Information" section (list maintained by the California Air Resources Board).

2. Group 2: Electricity generation facilities located in California, or electricity importers

   These types of facilities are subject to Cap and Trade (section 95811, b).

3. Group 3: Suppliers of Natural Gas, Suppliers of Reformulated Gasoline Blendstock for Oxygenate Blending and Distillate Fuel Oil, Suppliers of Liquefied Petroleum Gas, and Suppliers of Blended Fuels

   These entities are subject to Cap and Trade compliance obligations which must cover all fuels (except jet fuels) identified in section 95811 (c) through (f) of the Cap-and-Trade regulation delivered to end users in California, less the fuel delivered to covered entities (group 1 above).

This facility is subject to the Cap-and-Trade regulation. Therefore, as discussed above, consistent with District Policies APR 2005 and APR 2025, the District concludes that the

GHG emissions increases associated with this project would have a less than significant individual and cumulative impact on global climate change.

District CEQA Findings

The District is the Lead Agency for this project because there is no other agency with broader statutory authority over this project. The District performed an Engineering Evaluation (this document) for the proposed project and determined that the activity will occur at an existing facility and the project involves negligible expansion of the existing or former use. Furthermore, the District determined that the activity will not have a significant effect on the environment. Therefore, the District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15301 (Existing Facilities), and finds that the project is exempt per the common sense exemption that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

Indemnification Agreement/Letter of Credit Determination

According to District Policy APR 2010 (CEQA Implementation Policy), when the District is the Lead or Responsible Agency for CEQA purposes, an indemnification agreement and/or a letter of credit may be required. The decision to require an indemnity agreement and/or a letter of credit is based on a case-by-case analysis of a particular project's potential for litigation risk, which in turn may be based on a project's potential to generate public concern, its potential for significant impacts, and the project proponent's ability to pay for the costs of litigation without a letter of credit, among other factors.

The criteria pollutant emissions and toxic air contaminant emissions associated with the proposed project are not significant, and there is minimal potential for public concern for this particular facility/operation. Therefore, an Indemnification Agreement and/or a Letter of Credit will not be required for this project in the absence of expressed public concern.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATCs S-36-120-0 thru '-122-0 subject to the permit conditions on the attached draft ATCs in **Attachment IX**.

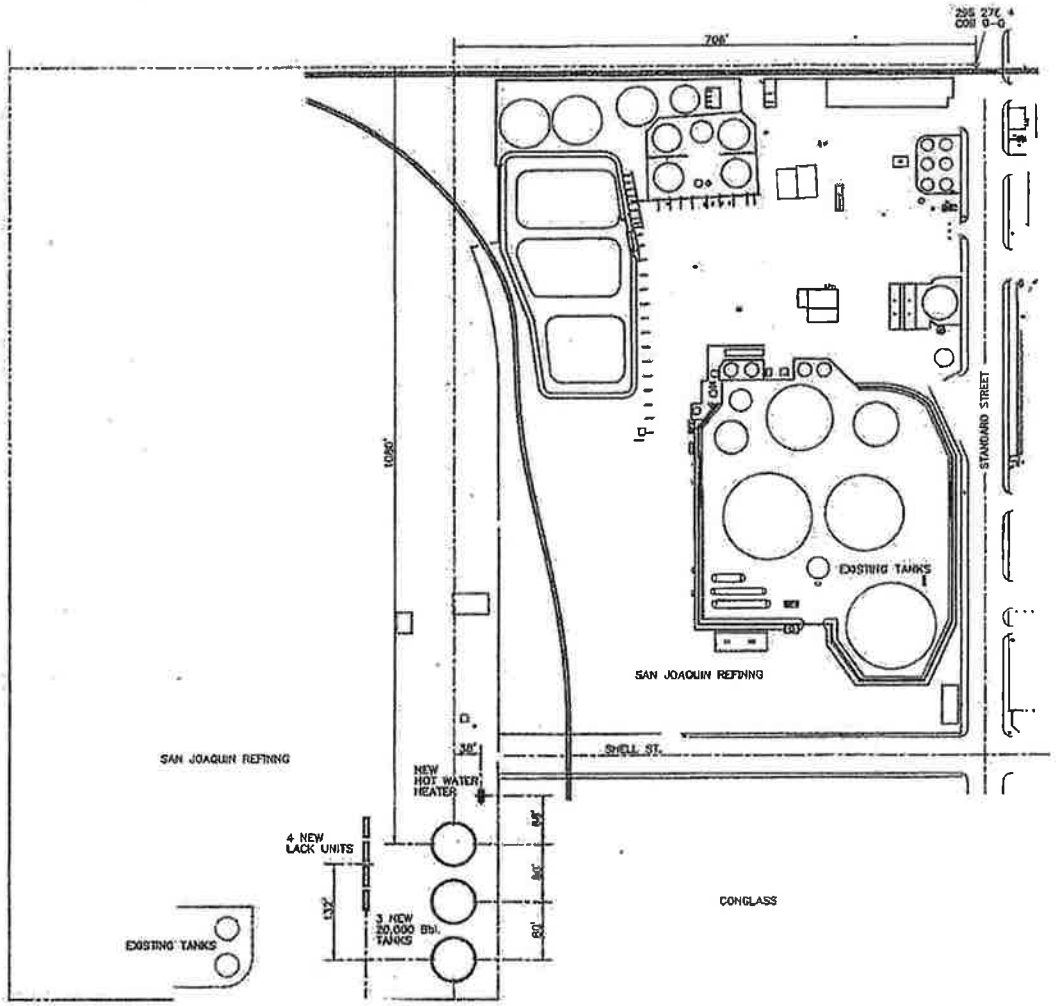
X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-36-120-0	3020-05F	714,000 gallons	$ 362.00
S-36-121-0	3020-05F	714,000 gallons	$ 362.00
S-36-122-0	3020-05F	714,000 gallons	$ 362.00

Attachments

I: Plot Plan
II: Tank Emissions
III: Emissions Profiles
IV: BACT Guidelines
V: BACT Analysis
VI: ERC Withdrawal Calculations
VII: Statewide and Title V Compliance Certification
VIII: HRA
IX: Draft ATCs

ATTACHMENT I
Plot Plan



CRUDE UNLOADING TERMINAL
NEW TANK LOCATIONS
PARTIAL PLOT PLAN

SAN JOAQUIN REFINING CO. INC.

1/29/19

New TANKS ↑

Diameter
71 ft
17,000 bbl


San Joaquin Refining Company, Inc.
Standard St
Shell St
99
San Lauren

ATTACHMENT II
Tank Emissions Calculations

INTERNAL OR EXTERNAL FLOATING ROOF CALCUALTIONS				
COMPANY NAME	San Joaquin Refining		San Joaquin Refining	
COMPANY ID	S-36		S-36	
TANK NUMBER OR DESIGNATION	17K BBL Crude		17K BBL Crude	
INTERNAL OR EXTERNAL (I OR E)	I			
KRa, ZERO WIND SPEED LOSS (TABLE 7.1-8)	0.6		RIM SEAL LOSS (LB/YR)	24.57
KRb, WIND SPEED DEPENDENT LOSS (TABLE 7.1-8)	0.4		(equation 2-2)	
V, AVERAGE WIND SPEED (Bakersfield enter 6.4 TABLE 7.1-9) (zero if IFR)	6.4			
n, SEAL RELATED WIND SPEED EXPONENT (TABLE 7.1-	0		WITHDRAWAL LOSS (LB/YR)	4061.68
P, TRUE VAPOR PRESSURE, PSIA (TABLE 7.1-5)	0.5		(equation 2-4)	
Pa, AVERAGE ATMOSPHERIC PRESSURE, PSIA	14.7		DECK FITTING LOSS (LB/YR)	58.00
P*,(P/Pa)/(1+(1-P/Pa)^.5)^2	0.0086511666		(equation 2-5)	
Mv, VAPOR MOLECULAR WEIGHT (TABLE 7.1-2) (Default = 100 if not provided)	100		DECK SEAM LOSS (LB/YR)	80.59
Kc, PRODUCT FACTOR (.4 FOR CRUDE OIL, 1 FOR	0.4		(equation (2-9)	
Q, THROUGHPUT, bbl/YR	6,205,000.00			
C, SHELL CLINGAGE FACTOR bbl/1000 FT2 (table 7.1-	0.006		TOTAL LOSS (LB/YR)	4224.84
WL, AVERAGE LIQUID DENSITY (TABLE 7.1-2)Crude RVP 5 = 7.1	8.1			
D, TANK DIAMETER, FT	71		TOTAL LOSS (TONS/YR)	2.11
No, NUMBER OF COLUMNES (TABLE 7.1-11)	1			
Fc, EFFECTIVE COLUMNE DIAMETER (SEE NOTE 3, PG	1			
NUMBER OF EXCESS HATCHES (TABLE 7.1-12)	1			
ACCESS HATCH FITTING LOSS FACTOR (TABLE7 1-12)	1.6			
NUMBER OF AUTOMATIC GAUGE FLOAT WELLS (Table 7.1-	1			
GAUGE FLOAT WELL FITTING LOSS FACTOR (TABLE 7.1-	2.8			
NUMBER OF COLUMN WELLS (Table 7.1-12)	1			
COLUMN WELL LOSS FITTING LOSS FACTOR (Table 7.1-	10			
NUMBER OF LADDER WELLS (same as # of columns)	1			
LADDER WELL FITTIN LOSS FACTOR (Table 7.1-12)	56			
NUMBER OF ROOF LEG OR HANGER WELLS (TABLE 7.1-	21			
ROOF LEG OR HANGER WELL LOSS FACTOR (Table 7.1-	0			
NUMBER OF SAMPLE PIPES OR WELLS (Table 7.1-12)	1			
SAMPLE PIPE OR WELL LOSS FACTOR (Table 7.1-12)	43			
NUMBER OF STUB DRAINS (Table 7.1-12)	40			
STUB DRAIN LOSS FACTOR (Table 7.1-12)	1.2			
NUMBER OF VACUUM BREAKERS (table 7.1-13)	1			
VACUUM BREAKER LOSS FACTOR (Table 7.1-12)	6.2			
Fl, TOTAL DECK FITTING LOSS FACTOR	167.6			
Kd, 0 FOR WELDED DECK OR EXTERNAL TANKS, 0.14 FOR BOLTED DECK	0.14			
Sd, DECK SEAM LENGTH FACTOR (Table 7.1-16)	0.33			

ATTACHMENT III
Emissions Profiles

Application Emissions

Permit #: S-36-120-0	Last Updated
Facility: SAN JOAQUIN REFINING CO	04/29/2019 EDGEHILR

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	4225.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	11.6
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	1056.0
Q2:	0.0	0.0	0.0	0.0	1056.0
Q3:	0.0	0.0	0.0	0.0	1056.0
Q4:	0.0	0.0	0.0	0.0	1057.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					1.5
Quarterly Offset Amounts (lb/Qtr)					
Q1:					1584.0
Q2:					1584.0
Q3:					1585.0
Q4:					1585.0

Application Emissions

Permit #: S-36-121-0	Last Updated
Facility: SAN JOAQUIN REFINING CO	04/29/2019 EDGEHILR

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	4225.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	11.6
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	1056.0
Q2:	0.0	0.0	0.0	0.0	1056.0
Q3:	0.0	0.0	0.0	0.0	1056.0
Q4:	0.0	0.0	0.0	0.0	1067.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					1.5
Quarterly Offset Amounts (lb/Qtr)					
Q1:					1584.0
Q2:					1584.0
Q3:					1585.0
Q4:					1585.0

Application Emissions

Permit #: S-36-122-0	Last Updated
Facility: SAN JOAQUIN REFINING CO	04/29/2019 EDGEHILR

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	4225.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	11.6
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	1056.0
Q2:	0.0	0.0	0.0	0.0	1056.0
Q3:	0.0	0.0	0.0	0.0	1056.0
Q4:	0.0	0.0	0.0	0.0	1057.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					1.5
Quarterly Offset Amounts (lb/Qtr)					
Q1:					1584.0
Q2:					1584.0
Q3:					1585.0
Q4:					1585.0

ATTACHMENT IV
BACT Guideline

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 7.3.3*

Last Update: 10/01/2002

Petroleum and Petrochemical Production - Floating Roof Organic Liquid Storage or Processing Tank, = or > 471 bbl Tank capacity, = or > 0.5 psia TVP

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	95% control (Primary metal shoe seal with secondary wiper seal, or equal)	95% Control (Dual wiper seal with drip curtain or primary metal shoe seal with secondary wiper seal, or equal.)	

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in s a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

***This is a Summary Page for this Class of Source**

ATTACHMENT V
BACT Analysis

Internal Floating Roof Tank Top Down BACT Analysis

1. BACT Analysis for VOC Emissions:

a. Step 1 - Identify all control technologies

The SJVUAPCD BACT Clearinghouse guideline 7.3.3, identifies BACT for VOC emissions from a floating roof organic liquid storage tank as follows:

1) 95% Control (Dual wiper seal, with drip curtain or primary metal shoe seal with secondary wiper seal, or equal.) – Technologically Feasible
2) 95% Control (Primary metal shoe seal with secondary wiper seal, or equal). – Achieved in Practice

b. Step 2 - Eliminate technologically infeasible options

There are no technologically infeasible options to eliminate from step 1.

c. Step 3 - Rank remaining options by control effectiveness

1) 95% Control (Dual wiper seal, with drip curtain or primary metal shoe seal with secondary wiper seal, or equal.) – Technologically Feasible
2) 95% Control (Primary metal shoe seal with secondary wiper seal, or equal). – Achieved in Practice

d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed installing an internal floating roof tank equipped with a primary metal shoe seal with secondary wiper seal. Since these technologies have the same expected control efficiencies and a primary metal shoe seal with secondary wiper seal is both achieved in practice and technologically feasible, it will be considered the most effective option and a cost effective analysis will not be necessary.

e. Step 5 – Selection of BACT

The proposed use of an internal floating roof equipped with a primary metal shoe seal with secondary wiper seal resulting in 95% VOC emissions control efficiency satisfies BACT requirements for this operation.

ATTACHMENT VI
ERC Withdrawal Calculations

VOCs	1st Quarter (lb)	2nd Quarter (lb)	3rd Quarter (lb)	4th Quarter (lb)
ERC # S-4910-1	33,091	27,806	31,888	31,172
Offsets Required (Includes distance offset ratio)	4,752	4,752	4,755	4,755
Amount Remaining	28,339	23,054	27,133	26,417
Credits reissued under ERC S-YYYY-1	28,339	23,054	27,133	26,417

ATTACHMENT VII
Statewide and Title V Compliance Certification

SAN JOAQUIN REFINING CO.

April 15, 2019

Mr. Leonard Scandura
Permit Services Manager
San Joaquin Valley Unified
Air Pollution Control District
34946 Flyover Ct.
Bakersfield, CA 93308

Subject: **Federal Major Modification Statewide Compliance Certification**
S-36 ATC Application – Add Three Floating Roof Tanks

Dear Mr. Scandura:

I hereby certify that all major Stationary Sources owned or operated by such person (or by any entity controlling, controlled by, or under common control with such person) in California, which are subject to emission limitations, are in compliance or on a schedule for compliance with all applicable emission limitations and standards.

Signature

Environmental Manager
Title

San Joaquin Valley Air Pollution Control District

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

☐ ADMINISTRATIVE AMENDMENT ☐ MINOR MODIFICATION ☒ SIGNIFICANT MODIFICATION

COMPANY NAME: San Joaquin Refining Company, Inc.	FACILITY ID: S-36
1. Type of Organization: ☒ Corporation ☐ Sole Ownership ☐ Government ☐ Partnership ☐ Utility	
2. Owner's Name: San Joaquin Refining Company, Inc.	
3. Agent to the Owner: Jeffrey Beecher	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial **applicable** circles for confirmation):

Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).

Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.

Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.

Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true, accurate, and complete.

For minor modifications, this application meets the criteria for use of minor permit modification procedures pursuant to District Rule 2520.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:

Pat Oveson
Signature of Responsible Official

4-25-19
Date

PAT OVESON
Name of Responsible Official (please print)

REFINERY MGR.
Title of Responsible Official (please print)

ATTACHMENT VIII
HRA

San Joaquin Valley Air Pollution Control District
Risk Management Review
REVISED

To:	Richard Edgehill – Permit Services
From:	Georgia Stewart – Technical Services
Date:	April 29, 2019
Facility Name:	San Joaquin Refining Company Inc
Location:	3500 Shell Street, Bakersfield
Application #(s):	S-36-120-0 thru 122-0
Project #:	S-1190998

A. RMR SUMMARY

RMR Summary						
Units	**Prioritization Score**	**Acute Hazard Index**	**Chronic Hazard Index**	**Maximum Individual Cancer Risk**	**T-BACT Required?**	**Special Permit Requirements?**
17,000 bbl Floating Roof Tank (Unit 120-0)	3.30	2.94E-02	0.00	1.85E-07	No	No
17,000 bbl Floating Roof Tank (Unit 121-0)	3.30	2.91E-02	0.00	1.65E-07	No	No
17,000 bbl Floating Roof Tank (Unit 122-0)	3.30	2.95E-02	0.00	1.26E-07	No	No
Project Totals	9.91	8.80E-02	1.74E-02	4.76E-07		
Facility Totals	>1	1.38E-01	4.01E-02	9.33E-06		

Proposed Permit Requirements

To ensure that human health risks will not exceed District allowable levels; the following shall be included as requirements for:

Units # 120-0, 121-0, and 122-0

No special requirements are required.

B. RMR REPORT

I. Project Description

Technical Services received a request on April 29, 2019, to perform a revised Ambient Air Quality Analysis and a Risk Management Review for the proposed installation of three (3) internal floating roof crude oil storage tanks. The applicant increased the daily throughput from 13,000 bbl/day to 17,000 bbl/day.

II. Analysis

Toxic emissions from Oilfield Fugitives were calculated using emission factors derived from 1991 source tests of central valley sites, and input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP). In accordance with the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, May 28, 2015), risks from the proposed unit's toxic emissions were prioritized using the procedure in the 1990 CAPCOA Facility Prioritization Guidelines. The prioritization score for the proposed unit was greater than 1.0. The prioritization score for this proposed facility was greater than 1.0 (see RMR Summary Table). Therefore, a refined health risk assessment was required. The AERMOD model was used, with the parameters outlined below and meteorological data for 2013-2017 from Bakersfield to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the SHARP Program, which then used the Air Dispersion Modeling and Risk Tool (ADMRT) of the Hot Spots Analysis and Reporting Program Version 2 (HARP 2) to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the reviews:

Analysis Parameters Units 120-0, 121-0 and 122-0			
Source Type	Circular Area	**Location Type**	Urban
X-Length (m)- Radius	10.82	**Closest Receptor (m)**	41
Y-Length (m)	N/A	**Type of Receptor**	Business
Release Height (m)	8.66	**Pollutant Type**	VOC
Fugitive VOC Emissions Each Unit (lbs/hr)	0.483	**Fugitive VOC Emissions Each Unit (lbs/yr)**	4,225

AAQA.

An AAQA is modeled for the criteria pollutants CO, NOx, SOx and PM10. However, there are no State or Federal standards for VOC. Therefore, an AAQA was not performed.

III. Conclusion

The acute and chronic indices are below 1.0 and the cancer risk factor associated with the project is less than 1.0 in a million. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.

IV. Attachments

A. RMR request from the project engineer
B. Additional information from the applicant/project engineer
C. Prioritization score w/ toxic emissions summary
D. Facility Summary

ATTACHMENT IX
Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-36-120-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: SAN JOAQUIN REFINING CO
MAILING ADDRESS: PO BOX 5576
BAKERSFIELD, CA 93388

LOCATION: STANDARD AND SHELL ST
BAKERSFIELD, CA 93308

EQUIPMENT DESCRIPTION:
714,000 GALLON WELDED INTERNAL FLOATING ROOF CRUDE OIL STORAGE TANK WITH MECHANICAL SHOE PRIMARY SEAL AND SECONDARY WIPER SEAL

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 1,584 lb, 2nd quarter - 1,584 lb, 3rd quarter - 1,585 lb, and fourth quarter - 1,585 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 2/18/16) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Number S-4910-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Maximum throughput of tank shall not exceed 17,000 bbl/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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Samir Sheikh, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-36-120-0 : Dec 30 2019 8:58AM – EDGEHILR : Joint Inspection NOT Required

6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

7. An operator shall conduct a TVP testing of each uncontrolled fixed roof tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in each tank. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 are met. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

8. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

9. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

10. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

11. An operator shall submit the records of TVP and API gravity testing conducted in accordance with the requirements of Section 6.2 to the APCO within 45 days after the date of testing. The record shall include the tank identification number, PTO number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

12. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Rim vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90% of the opening. The fabric cover must be impermeable. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

19. Solid guidepole sampling or gauging wells, and similar fixed projections through a floating roof such as an anti-rotational pipe, shall meet the following requirements: 1) the well shall provide a projection below the liquid surface, 2) the well shall be equipped with a pole wiper and a gasketed cover, seal or lid which shall be in a closed position at all times (i.e., no visible gap) except when the well is in use, 3) the gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed one-half (1/2) inch. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Slotted guidepole sampling or gauging wells shall meet the following requirements: 1) the well shall provide a projection below the liquid surface, 2) the gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed one-eighth (1/8) inch. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Operators of floating roof tanks shall submit a tank inspection plan to the APCO for approval. The plan shall include an inventory of the tanks subject to this rule and a tank inspection schedule. A copy of the operator's tank safety procedures shall be made available to the APCO upon request. The tank inventory shall include tank's identification number, PTO number, maximum tank capacity, dimensions of tank (height and diameter), organic liquid stored, type of primary and secondary seal, type of floating roof (internal or external floating roof), construction date of tank, and location of tank. Any revision to a previously approved tank inspection schedule shall be submitted to the APCO for approval prior to conducting an inspection. [District Rule 2201] Federally Enforceable Through Title V Permit

22. For newly constructed, repaired, or rebuilt internal floating roof tanks, visually inspect the internal floating roof and its appurtenant parts, fittings, etc., and measure the gaps of the primary seal and/or secondary seal prior to filling the tank. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., the operator shall repair the defects before filling the tank. [District Rule 2201] Federally Enforceable Through Title V Permit

23. Visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of hydrocarbon vapors. Any defects found are violations of this rule. [District Rule 2201] Federally Enforceable Through Title V Permit

24. Actual gap measurements of the primary seal and/or secondary seal shall be conducted at least once every 60 months. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of hydrocarbon vapors. Any defects found shall constitute a violation of this rule. [District Rule 2201] Federally Enforceable Through Title V Permit

25. An operator shall submit the reports of the floating roof tank inspections conducted in accordance with the requirements of Section 6.1 of Rule 4623 to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and shall be made available upon request by the APCO. The inspection report shall contain all information necessary to demonstrate compliance with the provisions of this rule, including the following: 1) Date of inspection and names and titles of company personnel doing the inspection, 2) tank identification numbers and PTO number, 3) measurements of the gaps between the tank shell and primary and secondary seals, 4) leak-free status of tanks and floating roof deck fittings with records of leak-free status shall include the vapor concentration values measured in ppmv, 5) data, supported by calculations, demonstrating compliance with the requirements specified in Rule 4623 Sections 5.3, 5.4, 5.5.2.3.3, 5.5.2.4.2, and 5.5.2.4.3, 6) any corrective actions or repairs performed on the tank in order to comply with this rule and the date such actions were taken. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 2201] Federally Enforceable Through Title V Permit

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27. Permittee shall maintain accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

28. Permittee shall maintain accurate records of average daily throughput of tank. [District Rule 2201] Federally Enforceable Through Title V Permit

29. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-36-121-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: SAN JOAQUIN REFINING CO
MAILING ADDRESS: PO BOX 5576
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LOCATION: STANDARD AND SHELL ST
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23. Visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of hydrocarbon vapors. Any defects found are violations of this rule. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-36-122-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: SAN JOAQUIN REFINING CO
MAILING ADDRESS: PO BOX 5576
BAKERSFIELD, CA 93388

LOCATION: STANDARD AND SHELL ST
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EQUIPMENT DESCRIPTION:
714,000 GALLON WELDED INTERNAL FLOATING ROOF CRUDE OIL STORAGE TANK WITH MECHANICAL SHOE PRIMARY SEAL AND SECONDARY WIPER SEAL

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1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 1,584 lb, 2nd quarter - 1,584 lb, 3rd quarter - 1,585 lb, and fourth quarter - 1,585 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 2/18/16) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Number S-4910-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Maximum throughput of tank shall not exceed 17,000 bbl/day. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO

DRAFT

Arnaud Marjollet, Director of Permit Services

S-36-122-0 : Dec 30 2019 8:58AM – EDGEHILR : Joint Inspection NOT Required

6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

7. An operator shall conduct a TVP testing of each uncontrolled fixed roof tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in each tank. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 are met. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

8. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

9. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

10. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

11. An operator shall submit the records of TVP and API gravity testing conducted in accordance with the requirements of Section 6.2 to the APCO within 45 days after the date of testing. The record shall include the tank identification number, PTO number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

12. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Rim vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90% of the opening. The fabric cover must be impermeable. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

19. Solid guidepole sampling or gauging wells, and similar fixed projections through a floating roof such as an anti-rotational pipe, shall meet the following requirements: 1) the well shall provide a projection below the liquid surface, 2) the well shall be equipped with a pole wiper and a gasketed cover, seal or lid which shall be in a closed position at all times (i.e., no visible gap) except when the well is in use, 3) the gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed one-half (1/2) inch. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Slotted guidepole sampling or gauging wells shall meet the following requirements: 1) the well shall provide a projection below the liquid surface, 2) the gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed one-eighth (1/8) inch. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Operators of floating roof tanks shall submit a tank inspection plan to the APCO for approval. The plan shall include an inventory of the tanks subject to this rule and a tank inspection schedule. A copy of the operator's tank safety procedures shall be made available to the APCO upon request. The tank inventory shall include tank's identification number, PTO number, maximum tank capacity, dimensions of tank (height and diameter), organic liquid stored, type of primary and secondary seal, type of floating roof (internal or external floating roof), construction date of tank, and location of tank. Any revision to a previously approved tank inspection schedule shall be submitted to the APCO for approval prior to conducting an inspection. [District Rule 2201] Federally Enforceable Through Title V Permit

22. For newly constructed, repaired, or rebuilt internal floating roof tanks, visually inspect the internal floating roof and its appurtenant parts, fittings, etc., and measure the gaps of the primary seal and/or secondary seal prior to filling the tank. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., the operator shall repair the defects before filling the tank. [District Rule 2201] Federally Enforceable Through Title V Permit

23. Visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of hydrocarbon vapors. Any defects found are violations of this rule. [District Rule 2201] Federally Enforceable Through Title V Permit

24. Actual gap measurements of the primary seal and/or secondary seal shall be conducted at least once every 60 months. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of hydrocarbon vapors. Any defects found shall constitute a violation of this rule. [District Rule 2201] Federally Enforceable Through Title V Permit

25. An operator shall submit the reports of the floating roof tank inspections conducted in accordance with the requirements of Section 6.1 of Rule 4623 to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and shall be made available upon request by the APCO. The inspection report shall contain all information necessary to demonstrate compliance with the provisions of this rule, including the following: 1) Date of inspection and names and titles of company personnel doing the inspection, 2) tank identification numbers and PTO number, 3) measurements of the gaps between the tank shell and primary and secondary seals, 4) leak-free status of tanks and floating roof deck fittings with records of leak-free status shall include the vapor concentration values measured in ppmv, 5) data, supported by calculations, demonstrating compliance with the requirements specified in Rule 4623 Sections 5.3, 5.4, 5.5.2.3.3, 5.5.2.4.2, and 5.5.2.4.3, 6) any corrective actions or repairs performed on the tank in order to comply with this rule and the date such actions were taken. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

27. Permittee shall maintain accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

28. Permittee shall maintain accurate records of average daily throughput of tank. [District Rule 2201] Federally Enforceable Through Title V Permit

29. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit