DEC 08 2010

David Campbell
San Joaquin Refining Company
PO Box 5576
Bakersfield, CA 93388

Re: Notice of Preliminary Decision - Authority to Construct
Project Number: S-1103459

Dear Mr. Campbell:

Enclosed for your review and comment is the District's analysis of San Joaquin Refining Company's application for an Authority to Construct for modification of Loading Rack #6 to allow for switch loading of diesel into trucks previously holding gasoline, at the intersection of Shell St and Standard St, Bakersfield.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Richard Edgehill of Permit Services at (661) 392-5617.

Sincerely,

David Warner
Director of Permit Services

DW: RUE/cm

Enclosures
DEC 08 2010

Mike Tollstrup, Chief
Project Assessment Branch
Stationary Source Division
California Air Resources Board
PO Box 2815
Sacramento, CA 95812-2815

Re: Notice of Preliminary Decision - Authority to Construct
Project Number: S-1103459

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District’s analysis of San Joaquin Refining Company’s application for an Authority to Construct for modification of Loading Rack #6 to allow for switch loading of diesel into trucks previously holding gasoline, at the intersection of Shell St and Standard St, Bakersfield.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Richard Edgehill of Permit Services at (661) 392-5617.

Sincerely,

[Signature]
David Warner
Director of Permit Services

DW: RUE/cm

Enclosure
DEC 08 2010

Gerardo C. Rios (AIR 3)
Chief, Permits Office
Air Division
U.S. E.P.A. - Region IX
75 Hawthorne Street
San Francisco, CA 94105

Re: Notice of Preliminary Decision - Authority to Construct
Project Number: S-1103459

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of San Joaquin Refining Company's application for an Authority to Construct for modification of Loading Rack #6 to allow for switch loading of diesel into trucks previously holding gasoline, at the intersection of Shell St and Standard St, Bakersfield.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Richard Edgehill of Permit Services at (661) 392-5617.

Sincerely,

David Warner
Director of Permit Services

DW: RUE/cm

Enclosure
NOTICE OF PRELIMINARY DECISION
FOR THE PROPOSED ISSUANCE OF
AN AUTHORITY TO CONSTRUCT

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicit public comment on the proposed issuance of Authority to Construct to San Joaquin Refining Company for modification of Loading Rack #6 to allow for switch loading of diesel into trucks previously holding gasoline, at the intersection of Shell St and Standard St, Bakersfield.

The analysis of the regulatory basis for this proposed action, Project #S-1103459, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and the District office at the address below. Written comments on this project must be submitted within 30 days of the publication date of this notice to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.
I. Proposal

San Joaquin Refining Co., Inc (SJR) has requested an Authority to Construct (ATC) permit to modify loading rack #6 of Loading Rack Operation (S-36-101) to allow switch loading of diesel into trucks which previously held gasoline. Collected vapors will be combusted in a new vapor combustor.

Note that District Rule 4621 Section 5.7.6 prohibits switch loading unless the loading rack is equipped with an ARB certified vapor recovery system.

5.7.6 Switch loading shall not be conducted unless such transfer is made using a permanently installed ARB certified vapor recovery system.

However, in an email to the District an ARB employee stated that ARB can only certify vapor recovery systems for controlling gasoline vapors from gasoline marketing operations (email 8/13/10). Therefore ARB certification is not possible. For equivalency the District will require ARB testing of the vapor recovery system to demonstrate 95% volumetric vapor control efficiency.

Installation of the vapor control system and vapor combustor will result in a small increase in fugitive VOC emissions (< 0.5 lb/day) and combustion emissions of NOx, SOx, PM10, CO, and VOC triggering offsets. Additionally, the project is a Federal Major Modification and therefore public notice is also required.

There are no outstanding ATCs for S-36-101. PTO S-36-101-4 is included in Attachment I.

SJR received their Title V Permit on February 28, 2002. 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 (6/10/10)
Rule 2520 Federally Mandated Operating Permits (6/21/01)
Subpart Ja – not applicable – the loading rack being modified is not part of the sulfur recovery plant
Rule 4102 Nuisance (12/17/92)
Rule 4311 Flares (06/18/09) – exempt – vapor combustor is equipped with stack temperature control and therefore is not a flare
Rule 4455 Components At Petroleum Refineries, Gas Liquids Processing Facilities, And Chemical Plants (4/20/05)
Rule 4621 Gasoline Transfer into Stationary Storage Containers, Delivery Vessels, and Bulk Plants (12/20/07)
Rule 4624 Organic Liquid Loading (12/20/07) – exempt – Loading rack subject to Rule 4621
Rule 4801 Sulfur Compounds (12/17/92)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

This facility is located at the intersection of Shell Street and Standard Street, Bakersfield.

The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the noticing provisions of CH&SC 42301.6 do not apply.

A photograph of the location is included in Attachment II.

IV. Process Description

SJR is proposing to authorize switch loading from Loading Rack #6 of diesel into truck tanks that had previously contained gasoline. Vapors will be incinerated in a 4.6 MMBtuhr enclosed vapor combustor. The vapor combustor is equipped with a quench air louver to control the stack temperature at 1400 deg F.
Note that fugitive emissions correspond to only vapor component emissions. There is no increase in liquid fugitive emissions as liquid transferred from loading rack #6 is restricted to unheated organic materials with an initial boiling point of 302°F or greater as measured by test method ASTM D-86 (exempt as per Rule 2020 6.7.1.1.1) as stated in the following new ATC condition:

Loading racks #6 and #7 shall only transfer unheated organic materials with an initial boiling point of 302°F or greater as measured by test method ASTM D-86. [District Rules 2201 and 46241 Y]

Vapor Combustor Heat Release Rates

At a typical loading rate of 534 bbl/hr (374 gpm), 50 scfm would be displaced to the vapor combustor. Manufacturer has stated that the minimum Btu content of vapor that can be sent to the vapor combustor is 300 Btu/scf (LHV). For 50 scfm of displaced gasoline to the vapor combustor the heat release rate is calculated as follows:

\[
50 \text{ scfm} \times 0.001510 \text{ MMBtu/scf gasoline}^* \times 60 \text{ min/hr} = 4.5 \text{ MMBtu/hr (HHV)}
\]

Pilot gas releases 50 scf/hr \( \times 0.001 \) MMBtu/scf = 0.05 MMBtu/hr

Total heat input = 4.6 MMBtu/hr (HHV)

* Higher heating value of gasoline: 1,510 Btu/scf

The vapor combustor heat input rating is 4.6 MMBtu/hr and therefore is sized properly for the expected heat release rate. Manufacturer’s details on the vapor combustor are included in Attachment III.

V. Equipment Listing

Pre-Project Equipment Description:

S-36-101-4: LOADING RACK OPERATION WITH RACKS 6, 7, AND 13

Proposed Modification:

S-36-101-7: ALLOW SWITCH LOADING OF DIESEL FOR LOADING RACK #6, INSTALL 4.6 MMBTU/HR VAPOR COMBUSTOR

Post Project Equipment Description:

S-36-101-7: LOADING RACK OPERATION WITH RACKS 6, 7, AND 13 WITH 4.6 MMBTU/HR VAPOR COMBUSTOR

VI. Emission Control Technology Evaluation

The Loading Rack #6 vapor control system will be required to have a minimum control efficiency of 95% as required by District Rule 4621. This is expected as the vapors will be incinerated in a new vapor combustor and a stringent I&M program meeting the requirements of Rule 4455 will be implemented.
VII. General Calculations

A. Assumptions

Facility operates 24 hr/day, 365 day/yr

**Loading Rack #6**
Pre-project: diesel service only (exempt) i.e. VOC emissions are zero
Post-project: organic materials with an initial boiling point of 302°F or greater are exempt i.e. VOC emissions are zero
vapor control system in gasoline service (not exempt)

<table>
<thead>
<tr>
<th>Fugitive Emissions Component Counts (vapor control system)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>S-0036-101</td>
</tr>
</tbody>
</table>

0 leaks greater than 10,000 ppmv
VOC Content of hydrocarbons: 100%

**Vapor Combustor**
Operation, 24 hr/day, 1716 hr/yr
F factor, 8578 dscf @ 0% O₂ (60 deg F)/MMBtu (gasoline F factor assumed to be equal to F factor for natural gas)
Sulfur content of gasoline: 30 ppmw – CARB limit
Molecular weight of gasoline: 66 AP-42 Table 7.1-2
Higher heating value of gasoline: 1,510 Btu/scf
Lower heating value of gasoline: 1,396 Btu/scf
John Zink Vapor Combustion System Rating: 4.25 MMBtu/hr (LHV) which is equivalent to 4.25 MMBtu/hr x 1510/1396 = 4.6 MMBtu/hr (HHV)

**Loading Rack #7**
Pre- and Post-Project: diesel and therefore VOC emissions are zero

**Loading Rack #13**
Pre- and Post-Project: kerosene and mineral spirits
Disconnections occur 365 days/yr
tvp, 0.25 psia (project 1010993)
50 disconnections per day, 5 mL per disconnection
Daily Throughput, 2000 bbl/day
Liquid density, 6.89 lb/gal
Disconnects/day = 2000 bbl/day /150 bbl/truck * 2 disconnects/truck
T, temperature (maximum, by applicant) = 560° R
CE, control efficiency (expected for a balanced system) = 95%
B. Emission Factors

Loading Rack #6-new vapor control system with vapor combustor

Fugitive component VOC emissions will be calculated using CAPCOA Screening Range Emissions factors for Marketing Terminals, from California Implementation Guidelines for Estimating Emissions of Fugitive Hydrocarbon Leaks at Marketing Terminals, Table IV-2b, February 1999. The fugitive emissions factors are included in Attachment IV.

Enclosed Flare

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor (lb/MMBtu)</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx</td>
<td>0.068</td>
<td>FYI-83</td>
</tr>
<tr>
<td>SOx*</td>
<td>0.0069</td>
<td>Mass Balance</td>
</tr>
<tr>
<td>PM10</td>
<td>0.008</td>
<td>AP-42/FYI-83-BACT</td>
</tr>
<tr>
<td>CO</td>
<td>0.37</td>
<td>FYI-83</td>
</tr>
<tr>
<td>VOC</td>
<td>0.063</td>
<td>FYI-83</td>
</tr>
</tbody>
</table>

*30 lbs/10^6 lb gasoline x 66 lb gasoline/lbmol x lbmol/379 ft^3 x 10^6 scf/MMscf x MMscf/1510 MMBtu x 2 lb SOx/lb S = 0.0069 lb SOx/MMBtu

C. Calculations

1. Pre-Project Potential to Emit (PEI)

Disconnect Emissions from Loading Rack #13 - project 1010993

The emissions from the loading rack were estimated using the following equation AP-42 (A Compilation of Air Pollutant Emission Factors, January 1995), Section 5.2.2.1.1:

$$LL = 12.46 * S * P * M * (1/T) * (1 - (eff/100))$$

where:
- $LL$ = loading loss, pounds per $10^3$ gallons of liquid loaded
- $S$ = a saturation factor, 0.6
- $P$ = true vapor pressure of liquid loaded, 0.25 psia
- $T$ = temperature of liquid loaded, 530 °R
- $M$ = molecular weight of vapors, 130 lb/lb-mole
- $eff$ = 99% capture efficiency, 99% control efficiency (BACT requirement), overall efficiency 98%*

$$LL = 12.46 * 0.6 * 0.25 * 130*(1/560)* 0.05$$
$$LL = 0.0217 lbs/1000 gal (controlled)$$

$$PE_T = 0.0217 \text{ lb/1000 gal} \times 2000 \text{ bbl/day} \times 42 \text{ gal/bbl}$$
$$PE_1 = 1.8 \text{ lb/day}$$
Disconnects = 2000 bbl/day/150 bbl/truck*2 disconnects/truck * 
= 26.67 or 28 per/day rounding up to next even number

PE₂ = 28 disconnects/day * 5 ml/dis * 1 gal/3785.4 ml * 6.89 lb/gal

PE₂ = 0.3 lb/day

PE₁ + PE₂ = 2.1 lb/day (767 lb/yr)

<table>
<thead>
<tr>
<th>Total Pre-Project Potential to Emit (PE₁)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily Emissions (lb/day)</td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
<tr>
<td>NOₓ</td>
</tr>
<tr>
<td>SOₓ</td>
</tr>
<tr>
<td>PM₁₀</td>
</tr>
<tr>
<td>CO</td>
</tr>
<tr>
<td>VOC</td>
</tr>
</tbody>
</table>

2. Post Project Potential to Emit (PE₂)

Loading Rack # 6 (gaseous components only)

Fugitive Emissions
2.2 lb/kg x 24 hr/day [17 x 0.000013 kg/hr valve + 0.00012 kg/hr pressure relief valve (other) + 88 x 0.0000059 kg/hr connectors

= 0.04542 lb/day (17 lb/yr)
### Vapor Combustor Emissions

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Daily PE2</th>
<th>Annual PE2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EF2 (lb/MMBtu)</td>
<td>Heat Input (MMBtu/hr)</td>
</tr>
<tr>
<td>NO\textsubscript{x}</td>
<td>0.068</td>
<td>4.6</td>
</tr>
<tr>
<td>SO\textsubscript{x}</td>
<td>0.00690</td>
<td>4.6</td>
</tr>
<tr>
<td>PM\textsubscript{10}</td>
<td>0.0080</td>
<td>4.6</td>
</tr>
<tr>
<td>CO</td>
<td>0.370</td>
<td>4.6</td>
</tr>
<tr>
<td>VOC</td>
<td>0.0630</td>
<td>4.6</td>
</tr>
</tbody>
</table>

### Loading Rack # 7

Diesel Service 0 lb/day, 0 lb/yr

### Loading Rack # 13 (no change in emissions)

2.1 lb/day, 767 lb/yr

### Combined VOC Emissions

<table>
<thead>
<tr>
<th></th>
<th>Daily Emissions (lb/day)</th>
<th>Annual Emissions (lb/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loading Rack # 6</td>
<td>0.05 + 7.0 = 7.1</td>
<td>17 + 497 = 514</td>
</tr>
<tr>
<td>Loading Rack #7</td>
<td>0 (diesel)</td>
<td>0 (diesel)</td>
</tr>
<tr>
<td>Loading Rack # 13</td>
<td>2.1</td>
<td>767</td>
</tr>
<tr>
<td>Total</td>
<td>9.2</td>
<td>1,281</td>
</tr>
</tbody>
</table>
Greenhouse Gas Emissions (District Policy APR 2015)

CO2 Emissions: 4.6 MMBtu/hr x 116.7 lb/MMBtu
= 536.82 lb-CO2e/hour

CH4 Emissions: 4.6 MMBtu/hr x 0.011 lb/Btu x 23 lb-CO2e per lb-CH4
= 1.16 lb-CO2e/hour

N2O Emissions: 4.6 MMBtu/hr x 0.00022 lb/Btu x 296 lb-CO2e per lb-N2O
= 0.30 lb-CO2e/hour

Total = 536.82 + 1.16 + 0.30 = 538.28 lb-CO2e/hour

538.28 lb-CO2e/hour x 1716 hr/year + 2,000 lb/ton = 461.8 tons-CO2e/year

461.8 short tons-CO2e/year x 0.9072 metric tons/short ton
= 419 metric tons/yr > 230 tons-CO2e/year

Emissions profiles are included in Attachment V.

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.

Facility emissions are already above the Offset and Major Source Thresholds for NOx, SOx, PM10, CO, and VOC emissions; therefore, SSPE1 calculations are not necessary.

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.

Facility emissions are already above the Offset and Major Source Thresholds for NOx, SOx, PM10, CO, and VOC emissions; SSPE2 calculations are not necessary.

5. Major Source Determination

Pursuant to Section 3.24 of District Rule 2201, a Major Source is a stationary source with post-project emissions or a Post Project Stationary Source Potential to Emit (SSPE2), equal to or exceeding one or more of the following threshold values. However, Section 3.24.2 states, "for the purposes of determining major source status, the SSPE2 shall not include 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."

This source is an existing Major Source for NOx, SOx, PM10, CO, and VOC emissions and will remain a Major Source for NOx, SOx, PM10, CO, and VOC emissions. No change in other pollutants are proposed or expected as a result of this project.

6. Baseline Emissions (BE)

The BE calculation (in lbs/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 Section 3.7 of District Rule 2201, BE = Pre-project Potential to Emit 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 Section 3.22 of District Rule 2201.

*Clean Emissions Unit, Located at a Major Source*

Pursuant to Rule 2201, Section 3.12, a Clean Emissions Unit is defined as an emissions unit that is "equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

Loading Rack #13 operation (pre-project) is equipped with balanced vapor control with a control efficiency exceeding 95% (project 1010993). Loading Racks #s 6 and 7 are
currently in diesel service and do not emit VOCs. Therefore, Baseline Emissions (BE) for S-36-101 are equal to the Pre-Project Potential to Emit (PEI); BE = PEI = 2.1 lb/day.

7. SB 288 Modification

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."

As discussed in Section VII.C.5 above, the facility is an existing Major Source for VOC; however, the project by itself would need to be a significant increase in order to trigger a Major Modification. The emissions units within this project do not have a total potential to emit which is greater than Major Modification thresholds (see table below). Therefore, the project cannot be a significant increase and the project does not constitute a SB 288 Major Modification.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Project PE (lb/year)</th>
<th>Threshold (lb/year)</th>
<th>Major Modification?</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx</td>
<td>537</td>
<td>50,000</td>
<td>No</td>
</tr>
<tr>
<td>SOx</td>
<td>54</td>
<td>80,000</td>
<td>No</td>
</tr>
<tr>
<td>PM_{10}</td>
<td>63</td>
<td>30,000</td>
<td>No</td>
</tr>
<tr>
<td>VOC</td>
<td>1281</td>
<td>50,000</td>
<td>No</td>
</tr>
</tbody>
</table>

8. Federal Major Modification

District Rule 2201, Section 3.17 defines Federal Major Modification the same as "Major Modification" as defined by 40 CFR 51.165 and part D of Title I of the CAA. Section 3.17 also states that a SB 288 Major Modification is not a Federal Major Modification if the emissions increase for the project or the net emissions increase for the facility (calculated pursuant to 40 CFR 51.165 (a) (2) (ii) (B) through (D) and (F)) does not result in a significant increase as defined by Rule 2201 Table 3-1 or the modification does not cause facility wide emissions to exceed previously established plant wide applicability limit (PAL).

For determination whether a project has a significant increase the project emissions increase is first calculated. The project emissions increase for each pollutant is the projected actual emissions (PAE) and the baseline actual emissions (BAE).

Where there is no increase in design capacity or potential to emit, the PAE are equal to the annual emissions rate at which the unit is projected to emit in any one year selected within 5 years after the unit resumes normal operation (10 years for existing units with an increase in design capacity or potential to emit). If there is no increase in design capacity PAE cannot exceed PEI.
Loading Rack # 6 currently has no emissions as it processes only diesel (exempt) and therefore is a new emissions unit in the Federal Major Modification calculation. Loading Racks #s 7 and 13 are not being modified.

The emissions increase for the project is greater than Major Modification thresholds (see table below).

<table>
<thead>
<tr>
<th>Loading Rack #6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Federal Major Modification Significance Thresholds (Existing Major Source)</strong></td>
</tr>
<tr>
<td>Pollutant</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>VOC</td>
</tr>
<tr>
<td>NOx</td>
</tr>
<tr>
<td>PM&lt;sub&gt;10&lt;/sub&gt;</td>
</tr>
<tr>
<td>SOx</td>
</tr>
</tbody>
</table>

Therefore the project is a Federal Major Modification.

9. 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:

\[ \text{QNEC} = \text{PE2} - \text{BE} \]

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

Using the values in Sections VII.C.2 and VII.C.6 in the evaluation above, the QNEC is calculated and listed in the table below.

<table>
<thead>
<tr>
<th>S-36-101</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pollutant</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>NOx</td>
</tr>
<tr>
<td>SOx</td>
</tr>
<tr>
<td>PM&lt;sub&gt;10&lt;/sub&gt;</td>
</tr>
<tr>
<td>CO</td>
</tr>
<tr>
<td>VOC</td>
</tr>
</tbody>
</table>
VIII. Compliance

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 for the following:

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 a Major Modification.

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

Please note that the vapor combustor is a VOC control device and not an emissions unit. Therefore its emissions are not subject to BACT.

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

As discussed in Section I above, loading rack # 6 is considered a new emissions unit with fugitive emissions 0.045 lb/day < 2 lb/day VOC, therefore BACT is not triggered.

   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

There are no emissions units being modified. Therefore BACT is not triggered for modification purposes.

   d. SB 288/ Federal Major Modification

As discussed in Section VII.C.7 above, this project is a Federal Major Modification. However, only those emission units included in a project triggering a SB288 or Federal Major Modification that have an emission increase > 0.5 lb/day (calculated per Federal NSR procedures) are subject to BACT. The new fugitive emissions components authorized by this project result in an emissions increase < 0.5 lb/day; therefore BACT is not triggered for Federal Major Modification purposes.
B. Offsets

1. Offset Applicability

Pursuant to Section 4.5.3, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the Post Project Stationary Source Potential to Emit (SSPE\(2\)) equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

The following table compares the post-project facility-wide annual emissions in order to determine if offsets will be required for this project.

<table>
<thead>
<tr>
<th>Offset Determination (lb/year)</th>
<th>NO(x)</th>
<th>SO(x)</th>
<th>PM(10)</th>
<th>CO</th>
<th>VOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post Project SSPE (SSPE(2))</td>
<td>&gt;20,000</td>
<td>&gt;54,750</td>
<td>&gt;29,200</td>
<td>&gt;200,000</td>
<td>&gt;20,000</td>
</tr>
<tr>
<td>Offset Threshold</td>
<td>20,000</td>
<td>54,750</td>
<td>29,200</td>
<td>200,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Offsets calculations required?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

2. Quantity of Offsets Required

As seen above, the facility is an existing Major Source for NO\(x\), SO\(x\), PM\(10\), CO, and VOC and the SSPE\(2\) is greater than the offset thresholds; therefore offset calculations will be required for this project.

Per Sections 4.7.1 and 4.7.3, the quantity of offsets in pounds per year for NO\(x\) is calculated as follows for sources with an SSPE\(1\) greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) = \(\sum(PE2 - BE) + ICCE\) 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

\(BE\) = Pre-project Potential to Emit 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)

As calculated in Section VII.C.6 above, the Baseline Emissions (BE) from this unit are equal to the Pre-Project Potential to Emit (PE1) since the unit is a Clean Emissions Unit.

Also, there is only one emissions unit associated with this project and there are no increases in cargo carrier emissions; therefore offsets can be determined as follows:

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

<table>
<thead>
<tr>
<th></th>
<th>PE2 (lb/yr)</th>
<th>BE (lb/yr)</th>
<th>PE2 – BE (lb/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx</td>
<td>537</td>
<td>0</td>
<td>537</td>
</tr>
<tr>
<td>SOx</td>
<td>54</td>
<td>0</td>
<td>54</td>
</tr>
<tr>
<td>PM10</td>
<td>63</td>
<td>0</td>
<td>63</td>
</tr>
<tr>
<td>CO</td>
<td>2,921</td>
<td>0</td>
<td>2,921</td>
</tr>
<tr>
<td>VOC</td>
<td>1281</td>
<td>767</td>
<td>514</td>
</tr>
</tbody>
</table>

NOx
Facility has proposed to withdraw ERC S-3479-2. The project is a Federal Major Modification, therefore the correct offset ratio is 1.5:1 (Section 4.8.1 Rule 2201), the amount of NOx ERCs that need to be withdrawn is:

Offsets Required (lb/year) = 537 x 1.5
= 806 lb NOx/year

<table>
<thead>
<tr>
<th>DOR 1.0:1</th>
<th>1st Quarter</th>
<th>2nd Quarter</th>
<th>3rd Quarter</th>
<th>4th Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>134</td>
<td>134</td>
<td>134</td>
<td>134</td>
<td>134</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DOR 1.5:1*</th>
<th>1st Quarter</th>
<th>2nd Quarter</th>
<th>3rd Quarter</th>
<th>4th Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>202</td>
<td>202</td>
<td>202</td>
<td>202</td>
<td>202</td>
</tr>
</tbody>
</table>

SOx
Facility has proposed to withdraw ERC S-4219001-5 with reductions occurring at another stationary source greater than 15 miles from S-0036. Therefore the correct offset ratio is 1.5:1 (Section 4.8.3 Rule 2201), the amount of SOx ERCs that need to be withdrawn is:

Offsets Required (lb/year) = 54 x 1.5
= 81 lb SOx/year

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

<table>
<thead>
<tr>
<th>DOR 1.0:1</th>
<th>1st Quarter</th>
<th>2nd Quarter</th>
<th>3rd Quarter</th>
<th>4th Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
</tbody>
</table>

| DOR 1.5:1 | 14          | 14          | 14          | 14          |
PM10
Facility has proposed to withdraw SOx ERC S-4219001-5 with reductions occurring at another stationary source greater than 15 miles from S-36, at an interpollutant offset ratio of 1.0:1 (Draft District Policy APR 14XX). Therefore, the correct offset ratio is 1.5:1 (Section 4.8.3 Rule 2201), the amount of SOx ERCs that need to be withdrawn is:

\[
\text{Offsets Required (lb/year)} = 63 \times 1.5
\]

\[
= 95 \text{ PM10/year}
\]

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

DOR 1.0:1

<table>
<thead>
<tr>
<th>Quarter</th>
<th>1st Quarter</th>
<th>2nd Quarter</th>
<th>3rd Quarter</th>
<th>4th Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>

DOR 1.5:1

<table>
<thead>
<tr>
<th>Quarter</th>
<th>1st Quarter</th>
<th>2nd Quarter</th>
<th>3rd Quarter</th>
<th>4th Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
</tbody>
</table>

The ERC certificate S-4219001-5 has available quarterly SOx credits as follows:

<table>
<thead>
<tr>
<th>Certificate</th>
<th>1st Quarter</th>
<th>2nd Quarter</th>
<th>3rd Quarter</th>
<th>4th Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERC #S-4219001-5</td>
<td>104</td>
<td>105</td>
<td>106</td>
<td>106</td>
</tr>
</tbody>
</table>

CO
Section 4.6.1 of Rule 2201 states that emissions offsets are not required for increases in carbon monoxide in attainment areas provided the applicant demonstrates to the satisfaction of the APCO that the Ambient Air Quality Standards are not violated in the areas to be affected, and such emissions will be consistent with Reasonable Further Progress, and will not cause or contribute to a violation of Ambient Air Quality Standards. The District performed an Ambient Air Quality Analysis (discussed later) and determined that this project will not result in or contribute to a violation of an Ambient Air Quality Standard for CO (see Attachment VI). Therefore, CO offsets are not required for this project.

VOCs
Facility has proposed to withdraw ERC S-3469-1. The project is a Federal Major modification; therefore the correct offset ratio is 1.5:1 (Section 4.8.1 Rule 2201), the amount of VOC ERCs that need to be withdrawn is:

\[
\text{Offsets Required (lb/year)} = 1281 - 767 \times 1.5
\]

\[
= 771 \text{ lb VOC/year}
\]
The ERC certificate S-3469-1 has available quarterly VOC credits as follows:

<table>
<thead>
<tr>
<th>Certificate</th>
<th>1st Quarter</th>
<th>2nd Quarter</th>
<th>3rd Quarter</th>
<th>4th Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERC #S-3469-1</td>
<td>39461</td>
<td>39461</td>
<td>39461</td>
<td>39462</td>
</tr>
</tbody>
</table>

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

**Proposed Rule 2201 (offset) Conditions:**

- Prior to operating under this Authority to Construct, permittee shall surrender emission reduction credits for the following quantities of emissions: NOx, 134 lb/quarter; SOx, 14 lb/quarter; PM10, 16 lb/quarter; VOC, 129 lb/quarter. Offset shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 12/18/2008). Offsets for PM10 shall be provided at a SOx:PM10 interpollutant ratio of 1.0:1. [District Rule 2201] Y

- ERC Certificate Numbers S-3479-2 (NOx), S-4219001-5 (SOx), S-4219001-5 (PM10), S-3469-1 (VOC), (or certificates split from these certificates) 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] Y

**C. Public Notification**

1. **Applicability**

Public noticing is required for:

a. Any new Major Source, which is a new facility that is also a Major Source,
b. Major Modifications,
c. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
d. Any project which results in the offset thresholds being surpassed, and/or
e. Any project with an SSiPE of greater than 20,000 lb/year for any pollutant.

a. **New Major Source**

New Major Sources are new facilities, which are also Major Sources. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

b. **SB 288/ Federal Major Modification**

As demonstrated in VII.C.7, this project is a Federal Major Modification; therefore, public noticing for Federal Major Modification purposes is required.
c. PE > 100 lb/day

Applications which include a new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. There are no new emissions units with a Potential to Emit greater than 100 pounds during any one day associated with this project; therefore public noticing is not required for this project for Potential to Emit Purposes.

d. Offset Threshold

The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>SSPE1 (lb/year)</th>
<th>SSPE2 (lb/year)</th>
<th>Offset Threshold</th>
<th>Public Notice Required?</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO\textsubscript{X}</td>
<td>&gt;20,000 lb/year</td>
<td>&gt;20,000 lb/year</td>
<td>20,000 lb/year</td>
<td>No</td>
</tr>
<tr>
<td>SO\textsubscript{X}</td>
<td>&gt;54,750 lb/year</td>
<td>&gt;54,750 lb/year</td>
<td>54,750 lb/year</td>
<td>No</td>
</tr>
<tr>
<td>PM\textsubscript{10}</td>
<td>&gt;29,200 lb/year</td>
<td>&gt;29,200 lb/year</td>
<td>29,200 lb/year</td>
<td>No</td>
</tr>
<tr>
<td>CO</td>
<td>&gt;200,000 lb/year</td>
<td>&gt;200,000 lb/year</td>
<td>200,000 lb/year</td>
<td>No</td>
</tr>
<tr>
<td>VOC</td>
<td>&gt;20,000 lb/year</td>
<td>&gt;20,000 lb/year</td>
<td>20,000 lb/year</td>
<td>No</td>
</tr>
</tbody>
</table>

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

e. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a Stationary Source Increase in Permitted Emissions (SSIPE) of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE is calculated as the Post Project Stationary Source Potential to Emit (SSPE2) minus the Pre-Project Stationary Source Potential to Emit (SSPE1), i.e. SSIPE = SSPE2 − SSPE1. The values for SSPE2 and SSPE1 are calculated according to Rule 2201, Sections 4.9 and 4.10, respectively. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table:
As demonstrated above, the SSIPEs for all pollutants were less than 20,000 lb/year; therefore public noticing for SSIPE purposes is not required.

2. Public Notice Action

As discussed above, public noticing is required for this project as the project is a Federal Major Modification.

D. Daily Emission Limits (DELs)

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.15 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.15.1 and 3.15.2, 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.

For this petroleum loading operation, the DELs are stated in the form of fugitive component counts and maximum daily disconnects. Loading rack #6 will continue to process diesel fuel only but will load into trucks previously containing gasoline. Therefore the DEL will correspond to new fugitive emissions vapor components associated with the vapor control system.

*Proposed Rule 2201 (DEL) Conditions:*

Loading racks #6 and #7 shall only transfer unheated organic materials with an initial boiling point of 302°F or greater as measured by test method ASTM D-86. [District Rules 2201 and 4624] Y

Switch loading shall not be conducted unless such transfer is made using a permanently installed vapor recovery system capable of achieving 95% control efficiency. [District Rules 2201 and 4621] Y

Emissions from the loading rack #6 vapor control system shall not exceed 0.05 lb/day. [District Rule 2201] Y

A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable.
hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in
EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per
minute. A gas or liquid leak from the loading rack #6 vapor control system is a violation of this permit and shall
be reported as a deviation. [District Rule 2201] Y

All vapors displaced from trucks served by Loading Rack #6 shall be incinerated in flare with 99% control
efficiency. [District Rule 2201] Y

Vapor combustor pilot flame shall be lit whenever truck bottom loading equipment is operating. [District Rule
2201] Y

Only PUC regulated natural gas shall be used as pilot fuel. [District Rule 2201] Y

Vapor combustor emissions shall not exceed any of the following limits: 0.068 lb-NOx/MMBtu, 0.0069 lb-
SOx/MMBtu, 0.008 lb-PM10/MMBtu, 0.063 lb-VOC/MMBtu, or 0.37 lb-CO/MMBtu. [District Rule 2201] Y

The flame shall be present at all times when combustible gases are vented through the vapor combustor.
[District Rule 2201] Y

A flame or heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an
equivalent device, capable of continuously detecting at least one pilot flame or the vapor combustor flame is
present shall be operational. [District Rule 2201] Y

E. Compliance Assurance

1. Source Testing

Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201. The following source testing requirement is included on the ATC:

California Air Resources Board approved testing shall be conducted within 120 days of completion of
installation or modification to verify that loading rack #6 vapor recovery system meets a minimum
volumetric control efficiency of 95%. [District Rules 2201 and 4621] Y

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. The following new condition(s) will appear on the permit to operate:

Records of loading rack component count and total fugitive emissions calculated using CAPCOA
Screening Range Emissions factors for Marketing Terminals, from California Implementation Guidelines
for Estimating Emissions of Fugitive Hydrocarbon Leaks at Marketing Terminals, Table IV-2b, February
1999 shall be maintained, retained on the premises for a period of at least 5 years, and made available
for District inspection upon request. [District Rule 2201] Y

Permittee shall maintain and make available for District inspection upon request for 5 years records that
demonstrate that Loading Racks #6 and #7 only transfer unheated organic materials with an initial boiling
point of 302°F or greater as measured by test method ASTM D-86. [District Rule 2020] Y
4. Reporting

The permittee shall submit progress reports to the District every 60 days until the California Air Resources Board issues final approval of testing methods. The reports shall include the status of development of the vapor control system, summaries of any testing and monitoring, and a description of any changes to the equipment or major maintenance work performed. [District Rules 2201 and 2080]

F. Ambient Air Quality Analysis

Section 4.14.1 of this Rule requires that an ambient air quality analysis (AAQA) 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. The Technical Services Division of the SJVAPCD conducted the required analysis.

As shown by the AAQA summary sheet (Attachment VI) the proposed equipment will not cause a violation of an air quality standard for NOX, CO, SOX, or PM10.

The results from the Criteria Pollutant Modeling are as follows:

Criteria Pollutant Modeling Results*

<table>
<thead>
<tr>
<th>Diesel ICE</th>
<th>1 Hour</th>
<th>3 Hours</th>
<th>8 Hours</th>
<th>24 Hours</th>
<th>Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>Pass</td>
<td>X</td>
<td>Pass</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>NOX</td>
<td>Pass</td>
<td>X</td>
<td>X</td>
<td>Pass</td>
<td>Pass</td>
</tr>
<tr>
<td>SOX</td>
<td>Pass</td>
<td>Pass</td>
<td>X</td>
<td>Pass</td>
<td>Pass</td>
</tr>
<tr>
<td>PM10</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Pass¹</td>
<td>Pass¹</td>
</tr>
</tbody>
</table>

*The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

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, this project constitutes a Federal Major Modification, therefore this requirement is applicable. The Statewide Compliance Certification correspondence is included in Attachment VII.

H. Alternative Siting Analysis

Alternative siting analysis is required for any project, which constitutes a New Major Source or a Federal Major Modification.

The current project is a Federal Major Modification and occurs at an existing refinery. The applicant proposes to install a small number of fugitive emissions components associated with an existing loading rack. Since the current project involves only minimal changes to a loading rack and no change to any other facets of the refinery operation, 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 and facilities on a much greater scale, and would therefore result in a much greater impact.

**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)**

The facility is currently in compliance with Subpart GGG and VV standards. The project is not expected to change the compliance status and therefore continued compliance is expected.

**Rule 4101  Visible Emissions**

Visible emissions in excess of 20% opacity or Ringelmann 1 are not expected from the organic liquid loading operation.

**Rule 4102  Nuisance**

Section 4.0 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.

**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 VI), the total facility prioritization score including this project was greater than one. Therefore, a health risk assessment 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

<table>
<thead>
<tr>
<th>Unit</th>
<th>Cancer Risk</th>
<th>T-BACT Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-36-101</td>
<td>0.05 per million</td>
<td>No</td>
</tr>
</tbody>
</table>

The project was approvable without TBACT.

**Rule 4455 Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants**

The purpose of this rule is to limit VOC emissions from leaking components at petroleum refineries, gas liquids processing facilities, and chemical plants.

San Joaquin Refining Company maintains a federally enforceable Title V Permit to Operate which includes fugitive component monitoring, repair, and reporting provisions consistent with the requirements of the rule. Compliance with this rule is expected.

**Rule 4621 Gasoline Transfer into Stationary Storage Containers, Delivery Vessels, and Bulk Plants**

The applicant is installing a new vapor control system with flare for switch loading of diesel into tanker trucks previously holding gasoline.

The applicable Section 5.7.6 is:

Section 5.7.6 Switch loading shall not be conducted unless such transfer is made using a permanently installed ARB certified vapor recovery system.

The following condition is included on the ATC:

Switch loading shall not be conducted unless such transfer is made using a permanently installed vapor recovery system capable of achieving 95% control efficiency. [District Rules 2201 and 4621] Y

In a email to the District an ARB employee stated that ARB can only certify vapor recovery systems for controlling gasoline vapors from gasoline marketing operations (email 8/13/10). Therefore ARB certification is not possible. However, for equivalency the District will require ARB testing of the vapor recovery system to demonstrate 95% volumetric vapor control efficiency.

Consistent with the requirements of Sections 6.2.2, 6.2.3, and 6.2.4 the following conditions will be included on the ATC:

California Air Resources Board approved testing shall be conducted within 120 days of completion of installation or modification to verify that loading rack # 6 vapor recovery system meets a minimum volumetric control efficiency of 95%. [District Rules 2201 and 4621] Y

The permittee shall submit progress reports to the District every 60 days until the California Air Resources Board issues final approval of testing methods. The reports shall include the status of development of the vapor control system, summaries of any testing and monitoring, and a description of any changes to the equipment or major maintenance work performed. [District Rules 2201 and 2080] Y
Operators shall notify the District at least seven days prior to any performance testing. [District Rule 4621] Y

Operators shall submit all performance test results to the District within 30 days of test completion. [District Rule 4621] Y

Compliance is expected.

**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)**

The California Environmental Quality Act (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 San Joaquin Valley Unified Air Pollution Control District (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.
- 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.

The District performed an Engineering Evaluation (this document) for the proposed project and determined that the potential to emit of this unit is less than two pounds in any one day for each criteria pollutant. Thus, Best Available Control Technology (BACT) requirements do not apply. Furthermore, the District conducted a Risk Management Review and concludes that potential health impacts are less than significant.

Issuance of permits for projects not subject to BACT requirements and with health impact less than significant is a matter of ensuring conformity with applicable District rules and regulations and does not require discretionary judgment or deliberation. Thus, the District concludes that this permitting action constitutes a ministerial approval. Section 21080 of the Public Resources Code exempts from the application of CEQA those projects over which a public agency exercises only ministerial approval. Therefore, the District finds that this project is exempt from the provisions of CEQA.

**IX. Recommendation**

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue Authority to Construct S-36-101-7 subject to the permit conditions on the attached draft Authority to Construct in Attachment VIII.
X. Billing Information

<table>
<thead>
<tr>
<th>Permit Number</th>
<th>Fee Schedule</th>
<th>Fee Description</th>
<th>Annual Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-36-101-7</td>
<td>3020-02-F</td>
<td>4.6 MMBtu/hr</td>
<td>$607.00</td>
</tr>
</tbody>
</table>

Attachments
I: Current PTO
II: Photograph of Location
III: Manufacturer's Information on Flare
IV: Fugitive Emissions
V: Emissions Profiles
VI: HRA/AAQA
VII: Statewide and Title V Compliance Certification Forms
VIII: Draft ATC
Attachment I
Current Permit to Operate
PERMIT UNIT REQUIREMENTS

1. Loading racks #6 and #7 shall not load liquids exceeding a True Vapor Pressure of 1.5 psia. [District NSR Rule] Federally Enforceable Through Title V Permit

2. Loading rack #13 shall not load liquids exceeding a True Vapor Pressure of 0.25 psia on a daily average. [District NSR Rule] Federally Enforceable Through Title V Permit

3. Throughput through loading rack #13 shall not exceed 2000 bbl per day. [District NSR Rule] Federally Enforceable Through Title V Permit

4. Loading rack #13 shall utilize a balance system tied to kerosene and mineral spirits storage vessels. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Total liquid drainage/leaks from loading rack #13 shall not exceed 5 ml per dry-break coupler disconnect. [District NSR Rule] Federally Enforceable Through Title V Permit

6. There shall be no more than seventeen (17) liquid-end dry break coupler disconnects per day at loading rack #13. [District NSR Rule] Federally Enforceable Through Title V Permit

7. There shall be no more than seventeen (17) vapor-end dry break coupler disconnects per day at loading rack #13. [District NSR Rule] Federally Enforceable Through Title V Permit

8. Permittee shall comply with all applicable inspection, maintenance, testing, and recordkeeping requirements of Rules 4451 and 4452. [District Rules 4451 and 4452] Federally Enforceable Through Title V Permit

9. Corrective steps shall be taken at any time the operator observes excess drainage at disconnect of loading rack #13. In addition, the operator shall perform and record the results of quarterly drainage inspections at disconnect for loading rack #13. If no excess drainage is found during five consecutive quarterly inspections, the drainage inspection frequency may be changed from quarterly to annual. However, if one or more excess drainage condition is found during an annual inspection, the inspection frequency shall change back to quarterly. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. Compliance shall be demonstrated by collecting all drainage at disconnect in a spouted container. The drainage shall be transferred to a graduated cylinder and the volume determined within one (1) minute of collection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. The permittee shall maintain an inspection log containing at least the following: A) dates of drainage inspections, B) findings, C) corrective action (including date each excess drainage condition repaired), and D) inspector name and signature. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Operator shall maintain all records of required monitoring data and support information for inspection for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
Attachment II
Photograph of Location
Location of Loading Rack # 6 and Vapor Combustor
Attachment III
Manufacturer's Information on Flare
VAPOR COMBUSTION SYSTEM
JOHN ZINK'S VAPOR COMBUSTION VERSATILITY

JOHN ZINK Vapor Combustion Units (VCUs) utilize well understood and proven technology which has been successfully used in numerous gasoline, ethanol, diesel, and other hydrocarbon applications including:

- Truck and rail car loading
- Barge and ship loading
- Storage tank transfer and breathing
- Barge and tank degassing
- Reactors, dryers and other process vents
- Pipeline breakout stations
- Soil remediation and groundwater cleanup
- API separators and other wastewater vents

JOHN ZINK VCUs combine the latest developments in vapor combustion technology with the best attributes of previously proven designs. Simply stated, they are often the most effective vapor control solution available.

PERFORMANCE YOU CAN COUNT ON

JOHN ZINK VCUs have been recognized by the U.S. Environmental Protection Agency as Best Demonstrated Technology (BDT) and Maximum Achievable Control Technology (MACT) for hydrocarbon vapor control.

JOHN ZINK VCUs can achieve volatile organic compound (VOC) destruction efficiencies greater than 99 percent, resulting in hydrocarbon emissions less than 10 milligrams per liter of product transferred. In addition, our VCUs satisfy all the applicable requirements of 40 CFR 60.18. Combustion is effective even on light hydrocarbons including methane and ethane. JOHN ZINK VCUs do not require any special fluids or materials for operation. Other technologies may require substances such as refrigerants, coolants, lube oils, catalysts, adsorbents or absorbents that involve special handling and disposal procedures.

www.johnzink.com
FUEL GAS SAVINGS YOU CAN BANK ON

The Vapor Equalizer™ can be supplied for gasoline or distillate vapors to reduce or eliminate auxiliary fuel usage by collecting gasoline vapors when rich, enriching vapors when lean, and averaging out vapor concentrations.

A separate assist gas burner reduces fuel use for inert vapors, especially when vapors are lean.

Premixing fuel with highly-oxygenated lean vapors can reduce fuel gas usage.

For higher turndown requirements, staged combustion and multiple assist air blowers reduce the amount of fuel gas required.

A stable burner design allows emission requirements to be met at lower operating temperatures.

Temperature control utilizes independent controllers for the fuel gas and quench air, allowing a lower temperature set point to be used for the fuel gas.

A JOHN ZINK Vapor Equalizer

www.johnzink.com
THE JOHN ZINK® DIFFERENCE

FLEXIBILITY

JOHN ZINK VCU systems can be used on a wide variety of hydrocarbon vapors, including gasoline, ethanol, diesel, and jet fuel, many simultaneously.

SIMPLE OPERATION AND MAINTENANCE

With simple control systems, few moving components, and minimal spare parts, our VCU systems result in extremely low operating and maintenance costs.

START-UP ASSISTANCE AND TRAINING

John Zink's engineers and technicians assist in VCU start-ups and personnel training to ensure safe operation, prevent equipment damage and extend operating life.

CONTINUING EDUCATION

Comprehensive vapor control courses held at the JOHN ZINK INSTITUTE™ help vapor control operators and engineers optimize their equipment and address issues at their facilities.

EXCEPTIONAL SERVICE

John Zink's service organization is the largest, most technically savvy team of its kind. Our service technicians are trained in the latest technologies to evaluate existing systems for upgrades and retrofits, to troubleshoot operations, and to help plan the customer's next turnaround.

- Scheduled preventative maintenance
- Emergency call-out available 24 hours per day, 7 days per week
- Equipment retrofit packages to keep equipment up-to-date, improve efficiency, and/or increase capacity
- Start-up assistance
- Installation assistance

EQUIPMENT RENTALS

JOHN ZINK Portable Emission Control Systems (PECS)™ are self-contained, trailer-mounted rental units available to accommodate temporary site issues related to turnarounds, remediation, maintenance, overloads or upsets.

WORLDWIDE SERVICE AND SUPPORT

www.johnzink.com
SECTION III

VCU PROCESS DESCRIPTION

The VCU system typically consists of a combustion chamber, special anti-flashback burner, automatic ignition pilot with continuous monitor, electric operated vapor block valve, detonation arrestor, air-assist blower, piping, instrumentation and master control panel. As an offered option, the combustor chamber can be flanged with the lower section packaged with the above items and mounted on a skid, as an assembled unit ready for convenient field installation.

Typically, until loading occurs at the transport loading rack, the vapor combustion system is in a standby mode with no pilot flame, the burner safety control valves are closed, and the air-assist blower is off. Automatic start-up of the vapor combustion system is initiated by an electrical signal from the loading rack that product loading will occur shortly.

The start-up sequence consists of a short air purge using the air-assist blower to purge the stack of any combustibles prior to pilot ignition. This brief air purge is followed by automatic electronic ignition of the pilots. After pilot ignition, product loading begins at the loading rack and an air-vapor mixture begins to flow from the transports being loaded to the vapor combustion system.

As soon as sufficient flow is available at the combustion system, it will be detected by the pressure monitoring control which will automatically open the burner safety control valve allowing the air vapor mixture to flow through the detonation arrestor to the burner, where the combustible vapors are ignited by the pilot and burned. The air-assist blower provides partial combustion air and mixing energy to the burner tip to assure smokeless combustion.

As the loading operation at the loading rack is completed, vapor flow to the combustion system decreases. The pressure monitoring system closes the vapor block valve when the line pressure has dropped to 0.5 inch of water column pressure. The pilot and air-assist blower will remain on for a brief time period after loading is complete. If no further loading occurs, the combustion unit will shut down in the standby mode to await automatic re-start as described.

The 10-mg/liter guarantee requires maintenance of an elevated combustion temperature to achieve peak emission control efficiency.

The operation of the temperature controlled vapor combustion system is comprised of temperature control system instrumentation. The temperature is automatically maintained during operation by a combination of assist gas and combustion air damper modulation, as required.

The safety design considerations for a vapor combustion unit used in terminal applications is very important in that the vapors to be burned may contain sufficient air concentration to present flashback potential. The John Zink vapor combustion system provides three (3) levels of flashback protection and prevention. These include: (1) proprietary anti-flashback burner, (2) burner safety shutoff pneumatic operated valve, and (3) detonation arrestor with high temperature shutdown switch, which serves as a final backup flashback protection device to minimize the risk for any flashback to reach the terminal.
SECTION IV
PERFORMANCE

The John Zink Vapor Combustion Unit will remove the hydrocarbon vapors from the incoming air/hydrocarbon vapor mixture in order to comply with guaranteed emission limits as stated below.

SUMMARY

GUARANTEED HYDROCARBON EMISSIONS LEVEL
(See Section VI for Performance Guarantee)

10 Mg Hydrocarbon per Liter Product Loaded

ESTIMATED SYSTEM PRESSURE DROP

10-12 Inches w.c. estimated at maximum inlet flow conditions. (See Section II, Design Basis)

VCU FUEL GAS REQUIREMENTS

Pilot Gas ........21 SCFH Propane @ 4 PSIG or 54 SCFH of Natural Gas
@ 7 PSIG per pilot

Assist Gas ........ As required. Note, the quench air louver will control stack
temperature to 1400 °F or another specified temperature.
Attachment IV
Fugitive Emissions
TABLE IV-2b: 1995 EPA PROTOCOL MARKETING TERMINAL SCREENING VALUE RANGE EMISSION FACTORS

<table>
<thead>
<tr>
<th>Component Type</th>
<th>Service Type</th>
<th>&lt; 10,000 ppmv THC Emission Factor (kg/hr/source)</th>
<th>≥ 10,000 ppmv THC Emission Factor (kg/hr/source)</th>
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<tbody>
<tr>
<td>Valves</td>
<td>Gas</td>
<td>1.3E-05</td>
<td>NA</td>
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<tr>
<td></td>
<td>Light liquid</td>
<td>1.5E-05</td>
<td>2.3E-02</td>
</tr>
<tr>
<td>Pump seals</td>
<td>Light liquid</td>
<td>2.4E-04</td>
<td>7.7E-02</td>
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<tr>
<td>Others (compressors and others)</td>
<td>Gas</td>
<td>1.2E-04</td>
<td>NA</td>
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<tr>
<td></td>
<td>Light liquid</td>
<td>2.4E-05</td>
<td>3.4E-02</td>
</tr>
<tr>
<td>Fittings (connectors and flanges)</td>
<td>Gas</td>
<td>5.9E-06</td>
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<td></td>
<td>Light liquid</td>
<td>7.2E-06</td>
<td>6.5E-03</td>
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</table>

*aSource: 1995 EPA Protocol for Equipment Leak Emission Estimates (EPA-453/R-95-017, November 1995). NOTE: These factors have not been corrected to reflect the technical corrections and adjustments discussed in Section III of the implementation guidelines.*

*bThese factors are for total organic compound emission rates (including non-VOC's such as methane and ethane). "NA" indicates that not enough data were available to develop the indicated emission factor.*

*cThe "Others" component type should be applied for any component type other than fittings, pump seals, or valves.*

*d"Fittings" were not identified as flanges or non-flanged connectors; therefore, the fitting emissions were estimated by averaging the estimates from the connector and the flange correlation equations.*
Attachment V
Emissions Profile
<table>
<thead>
<tr>
<th>Equipment Pre-Baselined: NO</th>
<th>NOX</th>
<th>SOX</th>
<th>PM10</th>
<th>CO</th>
<th>VOC</th>
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</thead>
<tbody>
<tr>
<td>Potential to Emit (lb/Yr):</td>
<td>537.0</td>
<td>54.0</td>
<td>63.0</td>
<td>2921.0</td>
<td>1281.0</td>
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<tr>
<td>Daily Emis. Limit (lb/Day)</td>
<td>7.5</td>
<td>0.8</td>
<td>0.9</td>
<td>40.8</td>
<td>9.2</td>
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<table>
<thead>
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<th>Quarterly Net Emissions Change (lb/Quqtr)</th>
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<th>Q3</th>
<th>Q4</th>
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Check if offsets are triggered but exemption applies

<table>
<thead>
<tr>
<th>Offset Ratio</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
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<td>193.0</td>
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Attachment VI
HRA/AAQA
To: Richard Edgehill – Permit Services
From: Leland Villalvazo – Technical Services
Date: October 31, 2010
Facility Name: San Joaquin Refinery
Location: Standard and Shell Street
Application #(s): S-36-101-7
Project #: S-1103459

A. RMR SUMMARY

<table>
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<tr>
<th>Categories</th>
<th>Type of Unit (101-7)</th>
<th>Project Totals</th>
<th>Facility Totals</th>
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<td>Prioritization Score</td>
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<td>6.98</td>
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<td>Acute Hazard Index</td>
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<td>0.044</td>
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<td>Chronic Hazard Index</td>
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<td>Maximum Individual Cancer Risk (10^-6)</td>
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<td>T-BACT Required?</td>
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<tr>
<td>Special Permit Conditions?</td>
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</table>

Proposed Permit Conditions

To ensure that human health risks will not exceed District allowable levels; the following permit conditions must be included for:

Unit # 101-7

Flare shall not operate in excess of 1716 hour/year.

B. RMR REPORT

I. Project Description

Technical Services received a request on October 11, 2010, to perform an Ambient Air Quality Analysis and a Risk Management Review to include a 4.6 MMBTU/Hr flare to combust gasoline vapors from the loading racks.

II. Analysis

Technical Services performed a prioritization using the District’s HEARTs database. Since the total facility prioritization score was greater than one, a refined health risk assessment was required. Emissions calculated using Ventura County Emission Factors for External
Attachments:

A. RMR request from the project engineer
B. Additional information from the applicant/project engineer
C. Toxic emissions summary
D. Prioritization score
Attachment VII
Statewide and Title V Compliance Certification Forms
I. TYPE OF PERMIT ACTION (Check appropriate box)

[ ] SIGNIFICANT PERMIT MODIFICATION  [ ] ADMINISTRATIVE
[X] MINOR PERMIT MODIFICATION  AMENDMENT

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all 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.

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

Ed Starbuck

Signature of Responsible Official

ED STARBUCK

Name of Responsible Official (please print)

VICE PRESIDENT

Title of Responsible Official (please print)

Mailing Address: Central Regional Office * 1990 E. Gettysburg Avenue * Fresno, California 93726-0244 * (559) 230-5900 * FAX (559) 230-6061

TVFORM-009

Rev. July 2009
Attachment VIII
Draft ATC
San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-36-101-7

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

LOCATION: STANDARD AND SHELL ST
BAKERSFIELD, CA 93308

SECTION: 24  TOWNSHIP: 2S  RANGE: 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF LOADING RACK OPERATION WITH RACKS 6, 7, AND 13: ALLOW SWITCH LOADING OF DIESEL FOR LOADING RACK #6, INSTALL 4.6 MMBTU/HR VAPOR COMBUSTOR

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 NSR Rule] 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. Loading racks #6 and #7 shall only transfer unheated organic materials with an initial boiling point of 302°F or greater as measured by test method ASTM D-86. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit

4. Switch loading shall not be conducted unless such transfer is made using a permanently installed vapor recovery system capable of achieving 95% control efficiency. [District Rules 2201 and 4621] Federally Enforceable Through Title V Permit

5. Loading rack #13 shall not load liquids exceeding a True Vapor Pressure of 0.25 psia on a daily average. [District NSR Rule] 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.

Seyed Sadredin, Executive Director RPCO

DAVID WARNER, Director of Permit Services
6. Throughput through loading rack #13 shall not exceed 2000 bbl per day. [District NSR Rule] Federally Enforceable Through Title V Permit

7. Loading rack #13 shall utilize a balance system tied to kerosene and mineral spirits storage vessels. [District NSR Rule] Federally Enforceable Through Title V Permit

8. Total liquid drainage/leaks from loading rack #13 shall not exceed 5 ml per dry-break coupler disconnect. [District NSR Rule] Federally Enforceable Through Title V Permit

9. There shall be no more than seventeen (17) liquid-end dry break coupler disconnects per day at loading rack #13. [District NSR Rule] Federally Enforceable Through Title V Permit

10. There shall be no more than seventeen (17) vapor-end dry break coupler disconnects per day at loading rack #13. [District NSR Rule] Federally Enforceable Through Title V Permit

11. Emissions of VOCs from fugitive emissions components associated with loading rack #6 vapor control system shall not exceed 0.05 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

12. California Air Resources Board approved testing shall be conducted within 120 days of completion of installation or modification to verify that loading rack #6 vapor recovery system meets a minimum volumetric control efficiency of 95%. [District Rules 2201 and 4621] Federally Enforceable Through Title V Permit

13. The permittee shall submit progress reports to the District every 60 days until the California Air Resources Board issues final approval of testing methods. The reports shall include the status of development of the vapor control system, summaries of any testing and monitoring, and a description of any changes to the equipment or major maintenance work performed. [District Rules 2201 and 2080] Federally Enforceable Through Title V Permit

14. Operators shall notify the District at least seven days prior to any performance testing. [District Rule 4621] Federally Enforceable Through Title V Permit

15. Operators shall submit all performance test results to the District within 30 days of test completion. [District Rule 4621] Federally Enforceable Through Title V Permit

16. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak from the loading rack #6 vapor control system is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

17. All vapors displaced from bottom loading of trucks served by Loading Rack #6 shall be incinerated in vapor combustor with 99% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Vapor combustor shall not operate in excess of 1716 hrs/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Vapor combustor pilot flame shall be lit whenever truck bottom loading equipment is operating. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Only PUC regulated natural gas shall be used as pilot fuel. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Vapor combustor emissions shall not exceed any of the following limits: 0.068 lb-NOx/MMBtu, 0.0069 lb-SOx/MMBtu, 0.008 lb-PM10/MMBtu, 0.063 lb-VOC/MMBtu, or 0.37 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

22. The flame shall be present at all times when combustible gases are vented through the vapor combustor. [District Rule 2201] Federally Enforceable Through Title V Permit

23. A flame or heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the vapor combustor flame is present shall be operational. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Permittee shall comply with all applicable inspection, maintenance, testing, and recordkeeping requirements of Rules 4455. [District Rule 4455] Federally Enforceable Through Title V Permit

25. Corrective steps shall be taken at any time the operator observes excess drainage at disconnect of loading rack #13. In addition, the operator shall perform and record the results of quarterly drainage inspections at disconnect for loading rack #13. If no excess drainage is found during five consecutive quarterly inspections, the drainage inspection frequency may be changed from quarterly to annual. However, if one or more excess drainage condition is found during an annual inspection, the inspection frequency shall change back to quarterly. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. Compliance shall be demonstrated by collecting all drainage at disconnect in a spouted container. The drainage shall be transferred to a graduated cylinder and the volume determined within one (1) minute of collection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. The permittee shall maintain an inspection log containing at least the following: A) dates of drainage inspections, B) findings, C) corrective action (including date each excess drainage condition repaired), and D) inspector name and signature. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

28. Permittee shall maintain accurate daily records of liquid types, TVP, throughput, and number of dry-break coupler disconnects for loading rack #13, and shall make such records readily available for District inspection for a period of at least five years. [District Rule 2520, 9.4.2 and 9.5.2] Federally Enforceable Through Title V Permit

29. The operator shall maintain accurate daily records of liquid throughput, loading temperature and liquid TVP to verify continued exemption from District Rule 4624 (Amended December 17, 1992). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

30. Records of loading rack component count and total fugitive emissions calculated using CAPCOA Screening Range Emissions factors for Marketing Terminals, from California Implementation Guidelines for Estimating Emissions of Fugitive Hydrocarbon Leaks at Marketing Terminals, Table IV-2b, February 1999 shall be maintained, retained on the premises for a period of at least 5 years, and made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

31. Permittee shall maintain and make available for District inspection upon request for 5 years records that demonstrate that Loading Racks #6 and #7 only transfer unheated organic materials with an initial boiling point of 302°F or greater as measured by test method ASTM D-86. [District Rule 2020] Federally Enforceable Through Title V Permit

32. Prior to operating under this Authority to Construct, permittee shall surrender emission reduction credits for the following quantities of emissions: NOx, 134 lb/quarter; SOx, 14 lb/quarter; PM10, 16 lb/quarter; VOC, 129 lb/quarter. Offset shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 12/18/2008). Offsets for PM10 shall be provided at a SOx:PM10 interpollutant ratio of 1.0:1. [District Rule 2201] Federally Enforceable Through Title V Permit

33. ERC Certificate Numbers S-3479-2 (NOx), S-4219001-5 (SOx and PM10), S-3469-1 (VOC), (or certificates split from these certificates) 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