San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

DEC 20 2011

Ms. Helen Ordway
Alon Bakersfield Refining
6451 Rosedale Hwy
Bakersfield, CA 93308

Re: Notice of Preliminary Decision - ATC / Certificate of Conformity
Facility # S-33
Project # S-1114222

Dear Ms. Ordway:

Enclosed for your review and comment is the District's analysis of an application for Authority to Construct for Alon Bakersfield Refining at 6451 Rosedale Hwy in Bakersfield, CA. This Authority to Construct would authorize a previously permit exempt loading rack to transfer light crude oil.

After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the Authority to Construct will be issued to the facility with a Certificate of Conformity. 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.

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

If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

DW: KR/cm

Enclosures

Seyed Sadredin
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

HEALTHY AIR LIVING™

DEC 2 0 2011

Gerardo C. Rios, Chief
Permits Office
Air Division
U.S. EPA - Region IX
75 Hawthorne St.
San Francisco, CA 94105

Re: Notice of Preliminary Decision - ATC / Certificate of Conformity
Facility # S-33
Project # S-1114222

Dear Mr. Rios:

Enclosed for your review is the District's engineering evaluation of an application for Authority to Construct for Alon Bakersfield Refining at 6451 Rosedale Hwy in Bakersfield, CA, which has been issued a Title V permit. Alon Bakersfield Refining is requesting that a Certificate of Conformity, with the procedural requirements of 40 CFR Part 70, be issued with this project. This Authority to Construct would authorize a previously permit exempt loading rack to transfer light crude oil.

Enclosed is the engineering evaluation of this application and proposed Authority to Construct # S-33-439-0 with Certificate of Conformity. After demonstrating compliance with the Authority to Construct, the conditions will be incorporated into the facility's Title V permit through an administrative amendment.

Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter. If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

DW: KR/cm

Enclosures

Seyed Sadredin
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

HEALTHY AIR LIVING™

DEC 2 0 2011

Mike Tollstrup, Chief
Project Assessment Branch
Air Resources Board
P O Box 2815
Sacramento, CA 95812-2815

Re: **Notice of Preliminary Decision - ATC / Certificate of Conformity**
Facility # S-33
Project # S-1114222

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of an application for Authority to Construct for Alon Bakersfield Refining at 6451 Rosedale Hwy in Bakersfield, CA. This Authority to Construct would authorize a previously permit exempt loading rack to transfer light crude oil.

The public notice will be published approximately three days from the date of this letter. Please submit your written comments 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, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

DW: KR/cm

Enclosures

Seyed Sadredin
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 Application Review

Authorize Light Crude Oil Transfer from Existing Unloading Rack

Facility Name:	Alon Bakersfield Refining	Date:	December 9, 2011
Mailing Address:	P.O. Box 1551 Bakersfield, CA 93302	Engineer:	Kris Rickards
		Lead Engineer:	AP SVAC ADE
Contact Person:	Helen Ordway		Joe Selgrath (Consultant)
Telephone:	661-326-4422		661-377-0073 x12
Fax:	661-326-4255		
E-Mail:	Helen.Ordway@ALONUSA.com		selgrath@ix.netcom.com
Application #(s):	S-33-439-0		
Project #:	S-1114222		
Deemed Complete:	October 25, 2011		

DEC 1 2 2011

I. Proposal

Alon Bakersfield Refining (hereafter referred to as Alon) is applying for an Authority to Construct to permit a previously permit exempt railcar heavy crude oil unloading rack. The proposed operation of this unloading rack will allow the refinery to transfer (load and unload) light crude oil from railcars, which will require this equipment to operate under a permit.

Alon received their Title V Permit on February 28, 2003. This modification can be classified as a Title V significant modification pursuant to Rule 2520, Section 3.29, 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. Alon must apply to administratively amend their Title V permit.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (4/21/11)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4455	Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants (4/20/05)
Rule 4624	Transfer of Organic Liquids (12/20/07)
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

The facility is located at 6451 Rosedale Hwy in Bakersfield, CA. The equipment is not 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

The liquid transfer rack is currently used to transfer feedstock for the refinery process (primarily gas oil). The rack consists of pumps, hoses, and associated valves, flanges, and threaded connections.

The permit modification will allow the refinery to transfer a range of light to medium organic liquids by railcar. The existing permit exempt heavy crude oil loading/unloading rack will undergo minor piping modifications as needed.

V. Equipment Listing

S-33-439-0: RAILCAR ORGANIC LIQUID TRANSFER OPERATION WITH TEN (10) TRANSFER STATIONS, EACH WITH TWO (2) TRANSFER ARMS (REFINERY AREAS 1 & 2)

VI. Emission Control Technology Evaluation

Emissions from transferring organic liquids from rail cars to storage tanks include both fugitive VOC emissions from the components of the loading rack and VOC emissions from residual organic liquids lost disconnecting loading rack equipment from rail cars.

VOC emissions due to displaced vapors from the stationary storage tank are accounted for in the permit for the stationary storage tank (collected vapors discharge to refinery fuel gas or flare gas system where destruction efficiency of at least 99% is expected).

VII. General Calculations

A. Assumptions

- This facility may operate 24 hours per day, 365 days per year
- VOC is the only pollutant emitted from this operation
- All hydrocarbons in the oil and gas streams are VOCs (VOC content = 100%)
- Liquids loaded into railcars will be into railcars that previously stored fluids <1.5 psia (proposed by applicant)
- Correlation emission factors use the following assumptions:
  - 100% of components are within the correlation range
  - Screening values are used so default zero values are not
  - Screening value ranges are equal to minimum gas leak range of Rule 4455
- 23 lbs-CO_2e = 1 lb-CH_4 (California Climate Change Action Registry (CCAR), Version 3.1, January, 2009 (Appendix C, Tables C.7 and C.8) and APR 2015)
- Disconnects are limited to 40/day and 14,600/year (per Applicant)
- Crude oil density = 7.1 lb/gallon (AP-42, Table 7.1-2)

B. Emission Factors

The potential to emit due to fugitive components is calculated using the Correlation Equation Method described in the CAPCOA publication "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" (February 1999). Potential emissions have been calculated assuming measured screening values at the Rule 4455 leak thresholds for components in liquid service.

Alon has proposed an equivalent to the 8mL/disconnect listed as Technologically Feasible BACT (see letter describing system in Appendix G that was submitted with project S-1104286).

Emissions resulting from loading railcars previously storing, primarily, gas oil (TVP of 0.00066 psia) will be calculated using the AP-42 equation for transportation and marketing of petroleum liquids (equation 1) with a submerged fill pipe.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Alon has stated they will receive a maximum of 20 railcars per day, each with a capacity of 37,000 gallons. Assuming each of these railcars will then be loaded (only railcars previously storing gas oils will be loaded) the following calculation is made (AP-42, Section 5.2, Equation 1):

$$L_L = 12.46 \frac{SPM}{T}$$

Where,

L_L = loading loss of liquid loaded (lb/10^3 gal)
S = a saturation factor (from Table 5.2-1)
P = true vapor pressure of liquid loaded (psia)
M = molecular weight of vapors (lb/lb-mole)
T = temperature of bulk liquid loaded, °R (°F + 460)

Alon has stated that these railcars will be filled using a submerged fill pipe into clean tanks resulting in an S-factor of 0.50. As discussed, the vapor pressure of gas oil is 0.00066 psia and the molecular weight of this vapor is 130 lb/lb-mole. Using an average temperature of 90° F and converting to Rankine (°F + 460) a loading temperature of 550°R is used for the following calculation:

$$12.46 \frac{0.5 \; x \; 0.00066 \; x \; 130}{550} = 0.00097 \; \frac{lb \cdot VOC}{1{,}000 \; gal}$$

At 37,000 gallons per railcar and 20 railcars loaded per day, resulting daily emissions are 0.72 lb-VOC/day (0.00097 x 37 x 20) and annual emissions are 263 lb-VOC/year (daily PE x 365 days/year). Disconnect losses from gas oils is considered negligible.

Pre-Project Potential to Emit (PE1)		
	Daily Emissions (lb/day)	Annual Emissions (lb/year)
PE1	**0.7**	**263**

2. Post Project Potential to Emit (PE2)

Fugitive emissions from the components in service are calculated using the correlation equation spread sheet located in Appendix D. Disconnect losses are calculated as follows with total daily and annual emissions summarized in the following table:

$$\left(\frac{40\ disconnects}{day}\right)\frac{8\ mL}{disconnect}\left(\frac{gallon}{3{,}785\ mL}\right)\frac{7.1\ lb}{gallon} = 0.6\frac{lb \cdot VOC}{day}$$

$$\left(\frac{14{,}600\ disconnects}{year}\right)\frac{8\ mL}{disconnect}\left(\frac{gallon}{3{,}785\ mL}\right)\frac{7.1\ lb}{gallon} = 219\frac{lb \cdot VOC}{year}$$

Adding previously calculated loading losses of 0.7 lb-VOC/day and 263 lb-VOC/year result in the following total VOC emissions:

Post Project Potential to Emit (PE2)		
	Daily Emissions (lb/day)	Annual Emissions (lb/year)
Fugitive Emissions	3.0	1,103
Disconnect Losses	0.6	219
Loading Losses	0.7	263
Total VOC	**4.3**	**1,585**

Greenhouse Gas emissions are assumed to be 100% methane and equal to all VOC emitted (to be conservative):

$$\frac{1{,}585\ lb \cdot VOC}{year}\left(\frac{23\ lb\ CO_2e}{lb \cdot VOC}\right)\frac{short\ ton}{2{,}000\ lb}\left(\frac{0.9072\ metric\ tons}{short\ ton}\right) = 16.5\frac{metric\ tons \cdot CO_2e}{year}$$

Per District Policy, project specific greenhouse gas emissions less than or equal to 230 metric tons-CO_2e/year are considered to be zero for District permitting purposes and are exempt from further environmental review.

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 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 VOC emissions; therefore, SSPE2 calculations are not necessary.

5. Major Source Determination

Pursuant to Section 3.23 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 3.23.2 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 NO_X, SO_X, PM_{10}, CO, and VOC emissions and will remain a Major Source for NO_X, SO_X, PM_{10}, CO, and VOC emissions.

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.

Since this is considered a new emissions unit, BE = PE1 for all pollutants.

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 all pollutants, 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	1,585	50,000	No

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

8. Federal Major Modification

District Rule 2201, Section 3.17 states that Federal Major Modifications are the same as "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA.

The determination of Federal Major Modification is based on a two-step test. For the first step, only the emission *increases* are counted. Emission decreases may not cancel out the increases for this determination.

For new emissions units, the increase in emissions is equal to the PE2 for each new unit included in this project. The project's total emissions increase is compared to the Federal Major Modification Thresholds in the following table:

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	1,585	0	Yes
PM_{10}	0	30,000	No
$PM_{2.5}$	0	20,000	No
SO_x	0	80,000	No

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

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. Unless exempted pursuant to Section 4.2, 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 SB288 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 of this evaluation, the applicant is proposing to transfer light and medium crude oil through a previously permit exempt loading rack; therefore, for the purposes of NSR, this equipment is considered new and has emissions of VOC greater than 2 lbs/day. BACT is triggered for VOC only since the PE is greater than 2 lbs/day as demonstrated in Section VII.C.5 of this document.

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 Section VII.C.7 above, this project does constitute a Federal Major Modification for VOC emissions; therefore BACT is triggered for VOC for all emissions units in the project for which there is an emission increase.

2. BACT Guideline

BACT Guideline 7.1.14 applies to a light crude oil unloading rack (See **Appendix B).**

BACT Guideline 7.1.10 applies to switch loading/loading and may apply to the loading aspect of this organic liquid transfer rack (see following discussion).

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.

BACT Guideline 7.1.10 applies to switch loading/loading. This BACT guideline was based on two projects: one involving the loading of fluids into vessels previously storing organic fluids with a maximum TVP of 6 psia; the other into vessels previously storing gasoline. In contrast, railcars being loaded in this project exclusively previously stored gas oils with a typical TVP of 0.00066 psia. AP-42 describes "switch loading" when "...a nonvolatile product being loaded may expel the vapors remaining from a previous load of a volatile product such as gasoline." Gas Oils are not considered volatile.

Loading of fluids into these railcars is therefore considered unique from that described in BACT guideline 7.1.10 and a top down analysis was performed to determine if the achieved in practice option from BACT guideline 7.1.10 is cost effective for this application (see Appendix C). It was found that this control method (the only feasible method of controlling these emissions) was not cost effective.

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

VOC: Installation of a dry-drain suction piping configuration in combination with a light-weight valve at the end of the unloading hose. The proposed piping modification is expected to achieve an average disconnect loss of no greater than 8 mL per disconnect and therefore meets the Technologically Feasible BACT requirement (approved equivalent system in project S-1104286). In addition, this use of fugitive components subject to Rules 4409 or 4455 as applicable will be enforced.

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 (SSPE2) 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.

Offset Determination (lb/year)					
	NO_X	SO_X	PM_{10}	CO	VOC
Post Project SSPE (SSPE2)	NA	NA	NA	NA	>20,000
Offset Threshold	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	No	No	No	No	Yes

2. Quantity of Offsets Required

As seen above, the facility is an existing Major Source for VOC and the SSPE2 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 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) = $(\Sigma[PE2 - BE] + ICCE) \times DOR$, 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 new Emissions Unit.

Also, there is only one emissions unit associated with this project, there are no increases in cargo carrier emissions, and this project results in a Federal Major Modification (DOR = 1.5 per §4.8.1); therefore offsets can be determined as follows:

Offsets Required (lb/year) = (PE2 – BE) x DOR

PE2 (VOC) = 1,585 lb/year
BE (VOC) = 263 lb/year
DOR = 1.5

Offsets Required (lb/year) = (1,585 – 263) x 1.5
= 1,983 lb VOC/year

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

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
496	496	496	496

The applicant has stated that the facility plans to use ERC certificate S-3467-1 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-3467-1	53,758	54,557	54,966	54,874

With the following reservations (including this project, where excess credits are transferred from the 3rd quarter to supplement 1st quarter requirements):

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
S-1020545	931	931	931	931
S-1061149	21,227	21,227	21,227	21,227
S-1062741	2,688	2,688	2,688	2,688
S-1062742	13,040	13,069	13,102	13,073
S-1071447	8,068	8,068	8,068	8,068
S-1084518	6,725	6,725	6,725	6,725
S-1113367	671	671	671	671
S-1114222	408	496	584	496
Total:	**53,758**	**53,875**	**53,996**	**53,879**

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 - 496 lb, 2nd quarter - 496 lb, 3rd quarter - 496 lb, and fourth quarter - 496 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-3467-1 (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]

C. Public Notification

1. Applicability

Public noticing is required for:
a. New Major Sources, Federal Major Modifications, and SB288 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, and/or
d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant.

a. New Major Sources, Federal Major Modifications, and SB288 Major Modifications

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.

As demonstrated in VII.C.7, 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 Potential to Emit 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 following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

Offset Threshold				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO_X	NA	NA	20,000 lb/year	No
SO_X	NA	NA	54,750 lb/year	No
PM_{10}	NA	NA	29,200 lb/year	No
CO	NA	NA	200,000 lb/year	No
VOC	>20,000	>20,000	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 Stationary Source Increase in Permitted Emissions (SSIPE) of more than 20,000 lb/year of any affected pollutant. 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:

Stationary Source Increase in Permitted Emissions [SSIPE] – Public Notice					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO_x	NA	NA	0	20,000 lb/year	No
SO_x	NA	NA	0	20,000 lb/year	No
PM_{10}	NA	NA	0	20,000 lb/year	No
CO	NA	NA	0	20,000 lb/year	No
VOC	>20,000	>20,000	1,322	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.

2. Public Notice Action

As discussed above, public noticing is required for this project resulting in a Federal Major Modification. 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)

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.

Proposed Rule 2201 (DEL) Conditions:

- There shall be no more than 40 disconnects per day and 14,600 disconnects per year. [District Rule 2201]
- Maximum liquid spillage for liquids from organic liquid transfer operation shall not exceed 8 milliliters/disconnect based on an average from 3 consecutive disconnects. [District Rules 2201 and 4624]
- Loading of any fluid into railcars previously storing material with a TVP >1.5 psia is not permitted. [District Rule 2201]
- Maximum number of railcars loaded per day shall not exceed 20. [District Rule 2201]
- Emissions from fugitive emissions components and excess liquid drainage from organic liquid transfer facility shall not exceed 4.3 lb/day. [District Rule 2201]

E. Compliance Assurance

1. Source Testing

Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201.

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 condition will appear on the permit to operate:

- Daily records of the number of disconnects, railcars unloaded, and railcars loaded from organic liquid transfer facility shall be maintained, retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rules 1070 and 2201]
- Operator shall keep records of the throughputs of materials transferred, the results of any required leak inspections, and the quantity and type of components in service. [District Rules 2201 and 4624]
- Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

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.

There is no ambient air quality standard for VOC in the SJVAPCD; therefore, an analysis 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 Title I 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 Sections VIII-Rule 2201-C.1.a and VIII-Rule 2201-C.1.b, this project does constitute a Title I modification, therefore this requirement is applicable. Included in **Appendix F** is Alon's compliance certification.

H. Alternate Siting Analysis

The current project occurs at an existing facility. The applicant proposes to modify an existing crude oil loading rack.

Since the project will provide the ability to transfer crude oil 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 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."

Section 3.20.5 states that a minor permit modification is a permit modification that does not meet the definition of modification as given in Section 111 or Section 112 of the Federal Clean Air Act. Since this project will result in a Federal Major Modification the proposed project is considered to be a modification under the Federal Clean Air Act. As a result, the proposed project constitutes a Significant Modification to the Title V Permit pursuant to Section 3.29.

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 facility shall not implement the changes requested until the final permit is issued.

Rule 4001 New Source Performance Standards (NSPS)

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60.

40 CFR 60 Subpart GGG – Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries

This subpart applies to process units (as defined in the subpart) and compressors within a refinery. The loading/unloading operation is not a process unit as it does not produce products from petroleum and does not include any compressors. Therefore, this subpart does not apply to the fugitive components associated with the loading/unloading operation.

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 major sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63.

This facility is not a Major HAP Source. Therefore, the requirements of this regulation do not apply.

Rule 4101 Visible Emissions

Per Section 5.0, 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 IC engine is fired solely on natural gas, visible emissions are not expected to exceed Ringelmann 1 or 20% opacity. Also, based on past inspections of the facility continued compliance is expected.

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. 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 (**Appendix E**), 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		
Unit	Cancer Risk	T-BACT Required
S-33-439-0	0.0 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.

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification not have acute or chronic indices, or a cancer risk greater than the District's significance levels (i.e. acute and/or chronic indices greater than 1 and a cancer risk greater than 10 in a million). As outlined by the HRA Summary in Appendix E of this report, the emissions increases for this project was determined to be less than significant.

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. This rule establishes requirements for leak definition, leak detection and leak minimization requirements for all components that contain or contact VOC.

The operator has successfully implemented an operator management plan for the refinery for the current roster of components in VOC service. As required by this rule, the operator management plan submitted by Alon was reviewed and approved by the District.

The essential requirement of the rule is that an operator not use any component that leaks in excess of the applicable leak criteria established by the rule, with the exception that leaking components may be used provided that they are identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this rule. Minor and major gas and liquid leaks are defined and leak standards are established for the following component types: flanges, valves, threaded connections, pumps, compressor, pressure relief devices, pipes and other. The rule establishes inspection, re-inspection and maintenance requirements for components.

To enforce this rule, the District has developed a standard set of permit conditions that set forth the requirements of the rule. This set of conditions will be included on the permit for this emissions unit, as it has components in VOC service.

Compliance with this rule is expected.

Rule 4624 Transfer of Organic Liquid

The purpose of this rule is to limit VOC emissions from the transfer of organic liquids.

Alon proposes to operate a Class 1 organic liquid transfer facility as defined in the rule (Section 3.8). The liquid transfer facility will be used to transfer lighter crude oils than it is now transferring (including gas oil). Alon does not propose to load these light crude oils into railcars.

The requirements for Class 1 transfer facilities are set forth in Section 5.1 and require the transfer operation not to exceed 0.08 lb of VOC per 1000 gallon transferred and the use of either a vapor collection and control system (Section 5.1.2.1); the use of a fixed roof or floating roof container that meets the requirements of Rule 4623 (Sections 5.1.2.2 and 5.1.2.3); a pressure vessel with an APCO-approved vapor control system meeting the requirement specified in Rule 4623; or a closed VOC emissions control system.

Alon has stated that a vapor recovery system on tanks will be used when unloading organic liquids and Alon will not be permitted to load organic liquids with a TVP exceeding 1.5 psia (Alon has proposed that railcars not be equipped with vapor control); therefore, the following conditions will be included on the ATC:

- For this Class 1 organic liquid transfer facility, the emission of VOC from the transfer operation shall not exceed 0.08 pounds per 1,000 gallons of organic liquid transferred. [District Rule 4624]
- All unloaded liquids and gases shall be routed to one of the following systems: a vapor collection and control system; a fixed roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); a floating roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a pressure vessel equipped with an APCO-approved vapor recovery system that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a closed VOC emission control system. [District Rule 4624]
- Loading of an organic liquid with a TVP >1.5 psia is not permitted. [District Rule 4624]

All materials unloaded will be sent to tanks or pressure vessels that meet the requirements of Rule 4623. Compliance with the required emissions factor for Class I facilities (0.08 lbs per 1000 gallons) is demonstrated through compliance (Section 5.3) with the leak requirements set forth in the rule (Section 5.9) as stated in the following conditions:

- The operator of an organic liquid transfer facility shall inspect the vapor collection system, the vapor disposal system, and each transfer rack handling organic liquids for leaks during transfer at least once every calendar quarter using the test method prescribed in Section 6.3.8 of Rule 4624. [District Rule 4624]
- An operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually provided no leaks were found during the inspections required under provisions of Sections 5.9.1 and 5.9.2 of Rule 4624 during five consecutive quarterly inspections. Upon identification of any leak during an annual inspection the frequency shall revert back to quarterly and the operator shall contact the APCO in writing within 14 days. [District Rule 4624]
- A floating roof container that meets the applicable control requirements of Section 5.0 of Rule 4623 (Storage of Organic Liquids) shall be considered not leaking when receiving unloaded liquids for compliance with Rule 4624. [District Rule 4624]
- All equipment that is found leaking shall be repaired or replaced within 72 hours. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replacement equipment shall be reinspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624]

Alon will be required to keep records of the throughputs of materials transferred (Section 6.1.3) as stated in the following condition:

- Operator shall keep records of the throughputs of materials transferred, the results of any required leak inspections, and the quantity and type of components in service. [District Rules 2201 and 4624]

Compliance testing requirements of Section 6.2 for Class 1 Organic Liquid Transfer Facilities (applicable to unloading only) are not required if unloaded liquids/gases are sent to vapor controlled equipment as stated in the following ATC condition:

- All unloaded liquids and gases shall be routed to one of the following systems: a vapor collection and control system; a fixed roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); a floating roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a pressure vessel equipped with an APCO-approved vapor recovery system that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a closed VOC emission control system. [District Rule 4624]

Compliance with this rule 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; 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

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

The District's engineering evaluation (this document) demonstrates that the project would not result in an increase in project specific greenhouse gas emissions. The District therefore concludes that the project would have a less than cumulatively significant 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 use. Furthermore, the District determined that the activity will not have a significant effect on the environment. The District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15031 (Existing Facilities), and finds that the project is exempt per the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue Authority to Construct S-33-439-0 subject to the permit conditions on the attached draft Authority to Construct in **Appendix A**.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-33-439-0	3020-01-C	60 electric hp	$197.00

Appendices

A: Draft ATC
B: BACT Guideline
C: BACT Analysis
D: Fugitive Emission Calculation
E: HRA Summary
F: Compliance Certification
G: Technologically Feasible BACT Description

Bakersfield Californian

**NOTICE OF PRELIMINARY DECISION
FOR THE ISSUANCE OF AUTHORITY TO CONSTRUCT AND
THE PROPOSED MINOR MODIFICATION OF FEDERALLY
MANDATED OPERATING PERMIT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed issuance of Authority To Construct to Alon Bakersfield Refining for its oil refining operation at 6451 Rosedale Hwy in Bakersfield, California. This Authority to Construct would authorize a previously permit exempt loading rack to transfer light crude oil.

The analysis of the regulatory basis for these proposed actions, Project #S-1114222, 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 the proposed initial permit must be submitted within 30 days of the publication date of this notice to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.**

APPENDIX A

Draft ATC

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-33-439-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

EQUIPMENT DESCRIPTION:
RAILCAR ORGANIC LIQUID TRANSFER OPERATION WITH TEN (10) TRANSFER STATIONS, EACH WITH TWO (2) TRANSFER ARMS (REFINERY AREAS 1 & 2)

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 - 496 lb, 2nd quarter - 496 lb, 3rd quarter - 496 lb, and fourth quarter - 496 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] Federally Enforceable Through Title V Permit
4. ERC Certificate Number S-3467-1 (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. There shall be no more than 40 disconnects per day and 14,600 disconnects per year. [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.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
S-33-439-0 : Dec 9 2011 4:52PM – RICKARDK : Joint Inspection NOT Required

6. Emissions from fugitive emissions components and excess liquid drainage from organic liquid transfer facility shall not exceed 4.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Loading of any material into railcars previously storing material with a TVP >1.5 psia is not permitted. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Loading of an organic liquid with a TVP >1.5 psia is not permitted. [District Rule 4624] Federally Enforceable Through Title V Permit

9. Maximum number of railcars loaded per day shall not exceed 20. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Maximum liquid spillage for liquids from organic liquid transfer operation shall not exceed 8 milliliters/disconnect based on an average from 3 consecutive disconnects. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit

11. The operator shall not use any component that leaks in excess of the allowable leak standards of Rule 4455, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

12. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

13. The operator shall be in violation of Rule 4455 if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

14. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of Rule 4455 if the leaking components are repaired as soon as practicable but not later than the time frame specified in Rule 4455. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

15. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in Rule 4455 shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

16. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of Rule 4455 regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in Rule 4455. [District Rule 4455] Federally Enforceable Through Title V Permit

17. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

18. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. Components shall be inspected using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit

19. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of Rule 4455 during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit

21. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of Rule 4455. [District Rule 4455] Federally Enforceable Through Title V Permit

22. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected using EPA Method 21; and is found to be in compliance with the requirements of Rule 4455. [District Rule 4455] Federally Enforceable Through Title V Permit

23. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

24. All unloaded liquids and gases shall be routed to one of the following systems: a vapor collection and control system; a fixed roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); a floating roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a pressure vessel equipped with an APCO-approved vapor recovery system that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a closed VOC emission control system. [District Rule 4624] Federally Enforceable Through Title V Permit

25. For this Class 1 organic liquid transfer facility, the emission of VOC from the transfer operation shall not exceed 0.08 pounds per 1,000 gallons of organic liquid transferred. [District Rule 4624] Federally Enforceable Through Title V Permit

26. A leak is defined as the dripping of VOC-containing liquid at a rate of more than three (3) drops per minute; or for organic liquids other than gasoline, the detection of any gaseous or vapor emissions with a concentration of VOC greater than 1,000 ppmv above a background as methane when measured in accordance with the test method in Section 6.3.7; gasoline, a concentration of VOC greater than 10,000 ppmv, as methane, above background when measured in accordance with the test method in Section 6.3.7. Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from equipment into a container is not considered a leak provided such activities are accomplished as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4624] Federally Enforceable Through Title V Permit

27. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit

28. The operator of an organic liquid transfer facility shall inspect the vapor collection system, the vapor disposal system, and each transfer rack handling organic liquids for leaks during transfer at least once every calendar quarter using the test method prescribed in Section 6.3.8 of Rule 4624. [District Rule 4624] Federally Enforceable Through Title V Permit

29. An operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually provided no leaks were found during the inspections required under provisions of Sections 5.9.1 and 5.9.2 of Rule 4624 during five consecutive quarterly inspections. Upon identification of any leak during an annual inspection the frequency shall revert back to quarterly and the operator shall contact the APCO in writing within 14 days. [District Rule 4624] Federally Enforceable Through Title V Permit

30. A floating roof container that meets the applicable control requirements of Section 5.0 of Rule 4623 (Storage of Organic Liquids) shall be considered not leaking when receiving unloaded liquids for compliance with Rule 4624. [District Rule 4624] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

31. All equipment that is found leaking shall be repaired or replaced within 72 hours. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replacement equipment shall be reinspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624] Federally Enforceable Through Title V Permit

32. Operator shall keep records of the throughputs of materials transferred, the results of any required leak inspections, and the quantity and type of components in service. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit

33. Daily records of the number of disconnects, railcars unloaded, and railcars loaded from organic liquid transfer facility shall be maintained, retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

34. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

35. All records required by this permit shall be retained for a period of at least 5 years and shall be made available to the District upon request. [District Rules 1070 and 4624] Federally Enforceable Through Title V Permit

APPENDIX B

BACT Guideline

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 7.1.14*

Last Update 9/21/2006

Light Crude Oil Unloading Rack

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	use of dry-break couplers or equivalent on unloading lines with an average disconnect loss of no greater than 10 ml liquid per disconnect, and fugitive components subject to Rules 4409 or 4455 as applicable	use of dry-break couplers or equivalent on unloading lines with an average disconnect loss of no greater than 8 ml liquid per disconnect, and fugitive components subject to Rules 4409 or 4455 as applicable	

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**

APPENDIX C

BACT Analysis

Top Down BACT Analysis (Unloading)

1. **BACT Analysis for VOC Emissions:**

Step 1 - Identify all control technologies

The SJVAPCD BACT Clearinghouse guideline 7.1.14, 3rd quarter 2006, identifies BACT for VOC emissions from a light crude oil unloading rack as follows:

1. Use of dry-break couplers or equivalent on unloading lines with an average disconnect loss of no greater than 10 ml liquid per disconnect, and fugitive components subject to Rules 4409 or 4455 as applicable (achieved in practice)

2. Use of dry-break couplers or equivalent on unloading lines with an average disconnect loss of no greater than 8 ml liquid per disconnect, and fugitive components subject to Rules 4409 or 4455 as applicable (technologically feasible)

No control alternatives identified as alternate basic equipment for this class and category of source are listed.

Step 2 - Eliminate technologically infeasible options

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

Step 3 - Rank remaining options by control effectiveness

1) Use of dry-break couplers or equivalent on unloading lines with an average disconnect loss of no greater than 8 ml liquid per disconnect, and fugitive components subject to Rules 4409 or 4455 as applicable (technologically feasible)

2) Use of dry-break couplers or equivalent on unloading lines with an average disconnect loss of no greater than 10 ml liquid per disconnect, and fugitive components subject to Rules 4409 or 4455 as applicable (achieved in practice)

Step 4 - Cost Effectiveness Analysis

The applicant is proposing dry break couplers or an equivalent on unloading lines with an average disconnect loss of no greater than 8 mL of liquid per disconnect and fugitive components subject to Rule 4455. This is the highest ranking technologically feasible option, therefore a cost effective analysis will not be necessary.

Step 5 – Select BACT

BACT for VOC emissions from this light crude oil unloading rack are dry break couplers or an equivalent on unloading lines with an average disconnect loss of no greater than 8 mL of liquid per disconnect and fugitive components subject to Rule 4455. The applicant has proposed to modify an unloading rack to handle light crude oil with dry break couplers or an equivalent on unloading lines with an average disconnect loss of no greater than 8 mL of liquid per disconnect and fugitive components subject to Rule 4455; therefore BACT for VOC emissions is satisfied.

Top Down BACT Analysis (Loading)

1. **BACT Analysis for VOC Emissions:**

   a. Identify all control technologies

   The SJVAPCD BACT Clearinghouse guideline 7.1.10, 2nd quarter 2005 applies to switch loading/loading. This BACT guideline was based on two projects: one involving the loading of fluids into vessels previously storing organic fluids with a maximum TVP of 6 psia and the other into vessels previously storing gasoline. In contrast, railcars being loaded in this project exclusively previously stored gas oils with a typical TVP of 0.00066 psia. AP-42 describes "switch loading" when "...a nonvolatile product being loaded may expel the vapors remaining from a previous load of a volatile product such as gasoline." Loading of fluids into these railcars is therefore considered unique from that described on BACT guideline 7.1.10 and a top down analysis will be performed to determine if the achieved in practice option from BACT guideline 7.1.10 is cost effective for this application as follows:

   Cost Effectiveness Analysis

   Alon has stated there is no vapor service in this area of their facility. Alon has estimated that a thermal oxidizer and associated components to dispose of vapors would exceed $1 million with $25,000/year in operating costs. This estimate is consistent with a previous cost analysis performed for project S-1062742 for this facility (see quote following cost analysis).

   Oxidizer Cost Effectiveness Analysis

   Assumptions:

   Emissions controlled by the railcar vapor recovery system would be equal to the loading losses calculated in the calculations section.

   Calculations:

   Controlled emissions are equal to 263 lb-VOC/year.

   Thermal Oxidizer system (detailed costs follow the BACT Analysis Section):

   Capital Cost (Alon estimation, less than vapor control quoted in 2006, considered to be conservative): **$1,000,000** (includes all purchased equipment, taxes, freight, and installation).

   Total Estimated Capital Cost: **$1,000,000**

Equivalent Annual Capital Cost (Capital Recovery)

$$A = P \frac{i(1+i)^n}{(1+i)^n - 1}$$ where;

A = Equivalent Annual Control Equipment Capital Cost
P = Present value of the control equipment, including installation cost
i = interest rate (use 10%, or demonstrate why alternate is more representative of the specific operation).
n = equipment life (assume 10 years or demonstrate why alternate is more representative of the specific operation)

Where

P = $1,000,000
i = 10%,
n = 10 years
A = $162,700

Operation and Maintenance Labor (estimated by Alon) = $25,000/yr
Total annualized cost = $(162,700 + 25,000)/yr = $187,700/yr

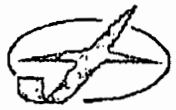
VOC Reduction due to Vapor Recovery System:

Total reduction = 263 lb/year = 0.13 ton VOC per year

Cost effectiveness:

Cost effectiveness = $187,700/0.13 tpy
Cost effectiveness = $1,443,846/ton

The cost effectiveness is greater than the $17,500/ton-VOC cost effectiveness threshold of the District BACT policy. Therefore the use of a vapor recovery system is not cost effective and is not required as BACT.



Project Description: Clean Fuels Project | **ROM Estimate** | **25-Aug-08**

Client: Big West of California

IAG Projects No. 25601 | **Incinerator**

Location: Bakersfield, California

DESCRIPTION	WORK HOURS	ESTIMATED COST			
		LABOR	MATERIAL	S/C	TOTALS
Demo	0	$0	$0	$0	$0
Site Work and Civil	52	$3,700	$900	$0	$4,600
Concrete	479	$34,500	$7,200	$0	$41,700
Structural Steel	110	$7,900	$5,900	$0	$13,800
Buildings	0	$0	$0	$0	$0
Equipment	1,000	$72,000	$750,000	$0	$822,000
Piping	419	$30,200	$7,800	$0	$38,000
Electrical	133	$9,600	$6,300	$0	$15,900
Control Systems	0	$0	$0	$0	$0
Paint and Insulation	300	$21,600	$13,000	$0	$34,600
Support Work	337	$24,200	$0	$0	$24,200
TOTAL DIRECT FIELD COSTS	2,830	$203,700	$791,100	$0	$994,800
Construction Indirect Field Costs (All-in Rate included w/ Directs)					In Rate
TOTAL INDIRECT FIELD COSTS					$0
TOTAL FIELD COSTS					$994,800
CM					$49,740
Engineering Costs					$149,220
TOTAL OFFICE COSTS					$198,960
TOTAL FIELD & OFFICE COSTS					$1,193,760
Sales Tax					Excluded
Fee					Excluded
Freight					$31,644
Escalation					Excluded
Contingency					$183,811
TOTAL					$1,409,215

Notes:

APPENDIX D

Fugitive Emission Calculation

Alon Bakersfield Refining
S33, 1114222

Fugitive Emissions Using Correlation Equation Emission Factors

California Implementation Guidelines for Estimating Mass Emissions
of Fugitive Hydrocarbon Leaks at Petroleum Facilities

Table IV-3a: CAPCOA -Revised 1995 EPA Protocol Refinery Correlation Equations for Refineries and Marketing Terminals

Table values include 100% in correlation range, no default zeroes (screening value does not equal zero), and screening value ranges equal to minimum gas leak range of Rule 4455

Equipment Type	Service	Component Count	% Default Zeros	%Pegged (>10,000)	% in Correlation Range	Correlation Screening Value (ppm)	Default Zero Emissions (lb/day)	Pegged Emissions (lb/day)	Correlation Emissions (lb/day)	VOC emissions (lb/day)
Valves	All	94	0.0%	0.0%	100.0%	200	0.000	0.000	0.591	0.59
Pump Seals	All	3	0.0%	0.0%	100.0%	500	0.000	0.000	0.384	0.38
Others	All	0	0.0%	0.0%	100.0%	500	0.000	0.000	0.000	0.00
Connectors	All	138	0.0%	0.0%	100.0%	200	0.000	0.000	0.552	0.55
Flanges	All	148	0.0%	0.0%	100.0%	200	0.000	0.000	1.494	1.49
Open-ended lines	All	0	0.0%	0.0%	100.0%	500	0.000	0.000	0.000	0.00

Total VOC Emissions (lb/day) = 3.0
Total VOC Emissions (lb/yr) = 1,103

Factors Used in Calculations - For Reference

Equipment Type	Service	Default Zero Factor (kg/hr)	Pegged Factor (kg/hr)	Correlation Equation (kg/hr)
Valves	All	7.800E-06	6.400E-02	2.27E-06(SV)^0.747
Pump Seals	All	1.900E-05	8.900E-02	5.07E-05(SV)^0.622
Others	All	4.000E-06	8.200E-02	8.69E-06(SV)^0.642
Connectors	All	7.500E-06	3.000E-02	1.53E-06(SV)^0.736
Flanges	All	3.100E-07	9.500E-02	4.53E-06(SV)^0.706
Open-ended lines	All	2.000E-06	3.300E-02	1.90E-06(SV)^0.724

APPENDIX E

HRA Summary

San Joaquin Valley Air Pollution Control District
Risk Management Review

To:	Stephen Leonard, AQE – Permit Services
From:	Joe Aguayo, AQS – Technical Services
Date:	October 31, 2011
Facility Name:	Alon Bakersfield Refining
Location:	6451 Rosedale Highway Bakersfield, CA 93308
Application #(s):	S-33-439-0
Project #:	S-1114222

A. RMR SUMMARY

RMR Summary			
Categories	**Light Crude Oil Unloading Rack (Unit 439-0)**	**Project Totals**	**Facility Totals**
Prioritization Score	0.0	0.0	>1.0
Acute Hazard Index	0.00	0.00	0.07
Chronic Hazard Index	0.00	0.00	0.06
Maximum Individual Cancer Risk (10^{-6})	0.0	0.0	9.4
T-BACT Required?	**No**		
Special Permit Conditions?	**No**		

Proposed Permit Conditions

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

Unit # 439-0

No special conditions are required.

B. RMR REPORT

I. Project Description

Technical Services received a request on October 25, 2011, to perform an Ambient Air Quality Analysis and a Risk Management Review for a rail car light crude oil unloading rack.

II. Analysis

Technical Services performed a health risk assessment using the Toxic Fugitive Emissions from Oilfield Equipment spreadsheet. The cumulative prioritization scores were greater than 1.0, thus modeling was conducted using the AERMOD model, with the parameters outlined below and meteorological data for 2005-2009 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.

Analysis Parameters Unit 439-0			
Source Type	Area	**Location Type**	Rural
X-Length (m)	106.68	**Closest Receptor (m)**	533.4
Y-Length (m)	106.68	**Type of Receptor**	Residential
Release Height (m)	1.37	**Pollutant Type**	VOC
		Emission Rate	0.15 lb/hr

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.

Since all emissions from the proposed equipment are VOCs and a National Ambient Air Quality Standard for VOC emissions has not been developed, emissions from the proposed equipment will not cause or contribute significantly to a violation of the State and National AAQS.

IV. Attachments

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

APPENDIX F

Compliance Certification

San Joaquin Valley
Unified Air Pollution Control District

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

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

COMPANY NAME: ALON USA	FACILITY ID: S - 33
1. Type of Organization:[X] Corporation [ ] Sole Ownership [ ] Government [ ] Partnership [ ] Utility	
2. Owner's Name: ALON USA	
3. Agent to the Owner:	

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

(GW) 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).

(GW) 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 effectiveduring the permit term, on a timely basis.

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

(GW) 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:

GM — 10/8/11

Signature of Responsible Official — Date

GORDON LEAMAN

Name of Responsible Official (please print)

GEN. MGR.

Title of Responsible Official (please print)

PARAMOUNT PETROLEUM

a subsidiary of ALON USA

BAKERSFIELD REFINERY

September 30, 2011

Mr. Leonard Scandura
Permit Services Manager
San Joaquin Valley Unified APCD
34946 Flyover Ct.
Bakersfield, CA 93308

Subject: **Authority To Construct Application**
Facility ID: S-33

Based on reasonable inquiry and to the best of my knowledge and belief, all major stationary sources, as defined in the jurisdiction where the facilities are located, that are owned or operated by Paramount Petroleum Corporation, a subsidiary of Alon USA or Alon USA (or by any entity controlling, controlled by, or under common control with such person) in the State of California which are subject to emission limitations are in compliance or on schedule for compliance with all applicable emission limitations and standards.

Please contact Helen Ordway at (661) 326-4422 or June Christman at (562) 748-4704 if you have any questions regarding this letter.

Sincerely,

Ed Juno
Vice President of West Coast Refining

cc: J. Christman, Paramount Petroleum Corporation

6451 Rosedale Hwy, Bakersfield, California 93308
P.O. Box 1551 Bakersfield, California 93302-1551
Telephone: 661-326-4200 • Fax: 661-326-4382

APPENDIX G

Technologically Feasible BACT Description

COPY: From project S-1104286

ALON USA **BAKERSFIELD REFINERY**

RECEIVED
JAN 21 2011
SJVAPCD
Southern Region

VIA EMAIL AND US MAIL

January 19, 2011

Mr. Leonard Scandura
San Joaquin Valley Air Pollution Control District
34946 Flyover Court
Bakersfield, CA 93308

Re: Comments on Draft Permit S-33-405-1

Dear Mr. Scandura:

Thank you for meeting with Alon staff recently to discuss the Authority to Construct required for changes to one of our loading racks at the Alon Bakersfield Refinery (Alon). As discussed with you and your staff on January 5, 2011, Alon provides the following comments on draft permit S-33-405-1.

As you are aware, BACT Guideline 7.1.14 is listed as applicable to the changes made to the existing light crude unloading rack and specifies "use of dry-break couplers or equivalent on unloading lines with an average disconnect loss of no greater than 8 ml liquid per disconnect, and fugitive components subject to Rules 4409 or 4455 as applicable." This BACT Guideline is described in the most recent BACT Clearinghouse search as Technically Feasible.

Alon will meet the equivalent of installing dry-break couplers on the unloading rack; however, as further described below, Alon will not use dry-break couplers on unloading lines. Instead, Alon proposes to use a drain dry suction configuration at the unloading rack in combination with a light-weight valve at the end of the unloading hose as indicated in Attachment 1, *Proposed Drain Dry Suction Configuration.* A photograph of a typical unloading hose with a light-weight valve at the truck end is provided as Attachment 2. With this configuration, Alon will meet the 8 ml per disconnect standard currently referenced in the draft permit and in the BACT Guideline as "technically feasible." To avoid confusion in the future with respect to permit compliance, Alon requests that the reference to dry-break couplers in condition #5 for draft permit S-33-405-1 be removed.

Dry-break couplers were designed for and are used in the petroleum industry for bottom loading tank trucks. They are heavy, costly and not designed for or used for unloading operations. Due to the typical configuration of unloading lines, they are not physically supported in the same manner as loading lines. By imposing use of heavy, dry-break couplers in unloading lines, there is an increased potential for worker injuries.

For unloading operations, the product is either dropped into an underground storage tank (typical at gasoline service stations) or gravity fed to the suction of a pump which then transfers the product to an aboveground storage tank. Between the pump and the unloading hose is a ball valve that is closed when the unloading operation is complete. As indicated above, Alon will also install a light-weight valve at the truck end of the unloading hose. This valve will be closed when unloading operations are complete. This configuration minimizes product drips and eliminates vapors from being emitted to the atmosphere when unloading operations are complete.

Alon requests that condition #5 for draft permit S-33-405-1 be re-written as follows:

> *"Organic liquid transfer operation shall be conducted with no greater than 8 ml liquid per disconnect based on an average from 3 disconnects. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit"*

6451 Rosedale Hwy, Bakersfield, California 93308
P.O. Box 1551 Bakersfield, California 93302-1551
Telephone: 661-326-4200 • Fax: 661-326-4382

ALON USA **BAKERSFIELD REFINERY**

Please feel free to contact me with any questions you may have.

Sincerely,

June Christman
Managing Director of Environmental Affairs

Cc: Richard Karrs
Richard Edgehill
Brian Pellens

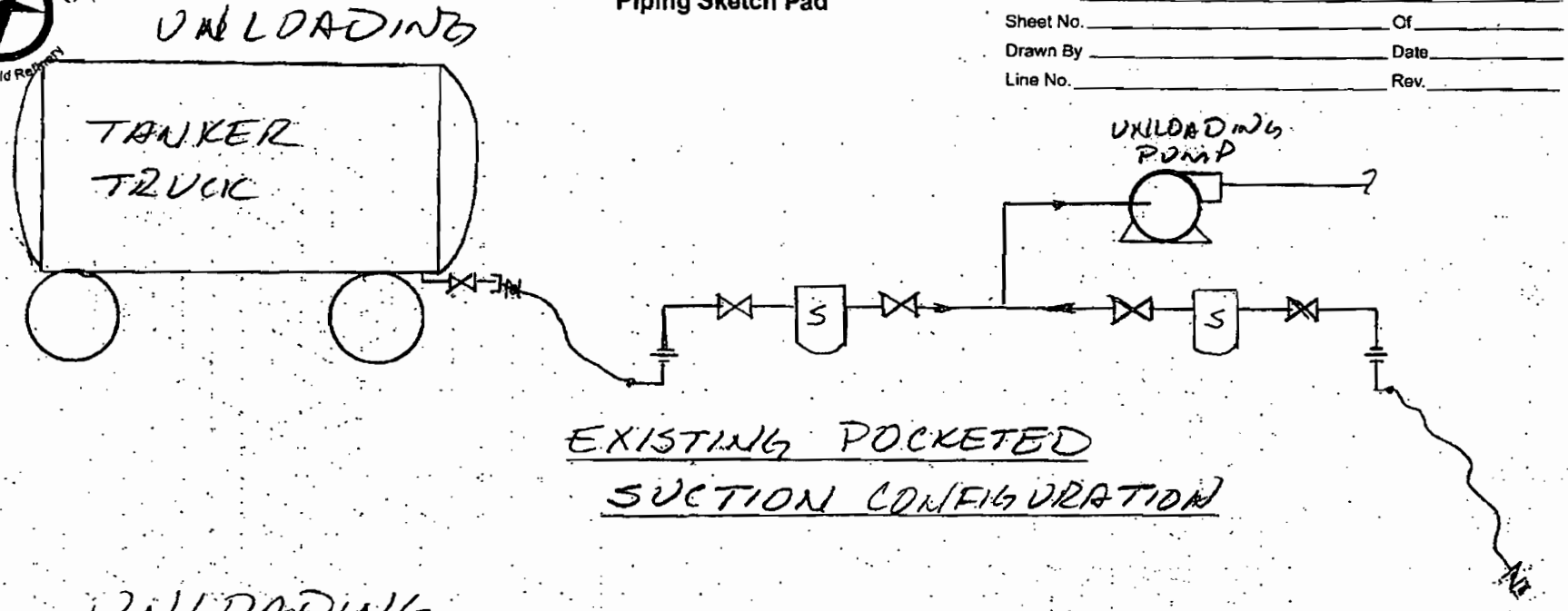
6451 Rosedale Hwy, Bakersfield, California 93308
P.O. Box 1551 Bakersfield, California 93302-1551
Telephone: 661-326-4200 • Fax: 661-326-4382

Attachment 1

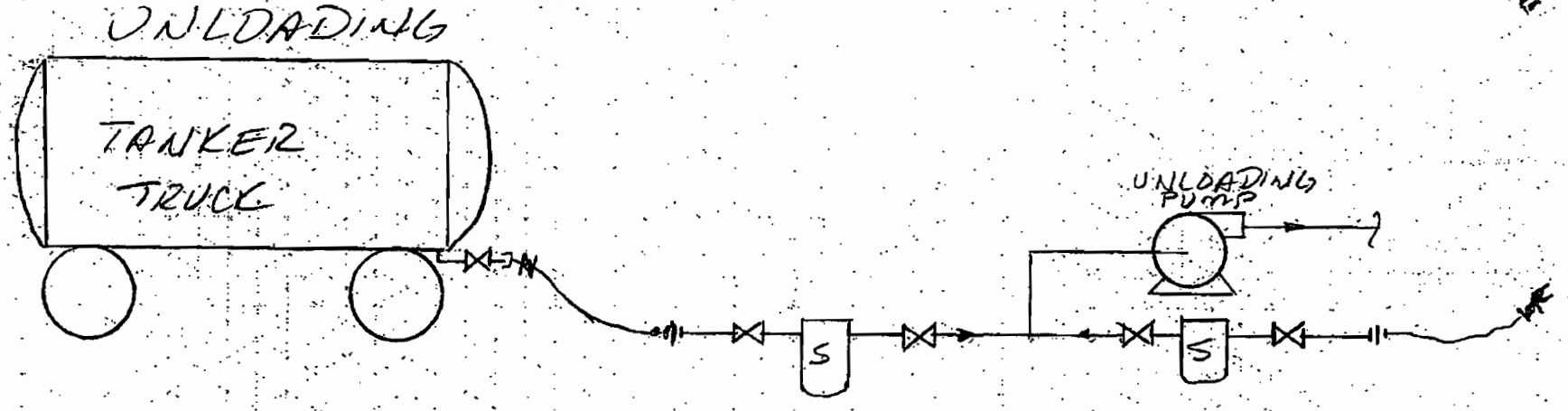
Bakersfield Project Organization
Piping Sketch Pad

Project No. _____
W.O. No. _____
Sheet No. _____ Of _____
Drawn By _____ Date _____
Line No. _____ Rev. _____

Big West of California, LLC
Bakersfield Refinery



EXISTING POCKETED SUCTION CONFIGURATION



PROPOSED DRAIN DRY SUCTION CONFIGURATION

Attachment 2