



JUN 04 2012

Donald J. Kelly  
KelPetro  
5555 San Felipe St, Suite 610  
Houston, Tx, 77056

**Re: Notice of Preliminary Decision - Authority to Construct**  
**Project Number: C-1120431**

Dear Mr. Kelly:

Enclosed for your review and comment is the District's analysis of KelPetro's application for an Authority to Construct for the installation of one 250 bbl fixed roof crude oil tank and to limit the TVP of the crude oil stored in tank C-5870-1-2 to 5.0 psi, at the Dons-Cerini lease in Fresno County.

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. Steve Davidson of Permit Services at (661) 392-5618.

Sincerely,



David Warner  
Director of Permit Services

DW:SDD/bw

Enclosures

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

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**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



JUN 04 2012

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: C-1120431**

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of KelPetro's application for an Authority to Construct for the installation of one 250 bbl fixed roof crude oil tank and to limit the TVP of the crude oil stored in tank C-5870-1-2 to 5.0 psi, at the Dons-Cerini lease in Fresno County.

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.

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JUN 04 2012

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: C-1120431**

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of KelPetro's application for an Authority to Construct for the installation of one 250 bbl fixed roof crude oil tank and to limit the TVP of the crude oil stored in tank C-5870-1-2 to 5.0 psi, at the Dons-Cerini lease in Fresno County.

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. Steve Davidson of Permit Services at (661) 392-5618.

Sincerely,



David Warner  
Director of Permit Services

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**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 solicits public comment on the proposed issuance of Authority to Construct to KelPetro for the installation of one 250 bbl fixed roof crude oil tank and to limit the TVP of the crude oil stored in tank C-5870-1-2 to 5.0 psi, at the Dons-Cerini lease in Fresno County.

The analysis of the regulatory basis for this proposed action, Project #C-1120431, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](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, 1990 E. Gettysburg Avenue, Fresno, CA 93726.

# Authority to Construct Application Review

Fixed Roof Oil Field Production Tank < 5000 BBLs  
Heavy Oil, Not Connected to Vapor Control

Facility Name: KelPetro  
Mailing Address: 5555 San Felipe St, Suite 610  
Houston, Tx, 77056  
Contact Person: Donald J. Kelly  
Telephone: (661) 377-0073  
Application #(s): C-5870-1-2 & '13-0  
Project #: C-1120431  
Deemed Complete: March 20, 2012

Date: May 17, 2012  
Engineer: Steve Davidson  
Lead Engineer: Dan Klevannn  
DK 5-22-12

## I. Proposal

KelPetro is applying for Authorities to Construct (ATC) permits for the installation of one 250 bbl fixed roof crude oil tank with a tank pressure relief or pressure/vacuum relief device. To offset the increase in emissions associated with tank C-5870-13, KelPetro is requesting to limit the TVP of the crude oil stored in tank C-5870-1-2 to 5.0 psi.

Pursuant to their current operating permit, this facility is an existing major source for VOCs; KelPetro has not received their Title V permit. An application to comply with Rule 2520 - Federally Mandated Operating Permits has already been submitted to the District. Therefore, no action is required at this time.

## 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 4101 Visible Emissions (04/20/05)  
Rule 4102 Nuisance (2/17/05)  
Rule 4623 Storage of Organic Liquids (05/19/05)  
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 the Dons-Cerini lease production tank farm (Sect: 22, Township: 17S, Range: 19E. The facility is not located within 1,000 feet of the outer boundary of any K-12 school, Therefore, pursuant to CH&SC 42301.6, California Health and Safety Code (School Notice), public notification is not required.

**IV. Process Description**

The subject tanks at the Dons-Cerini lease are used to process/store crude oil prior to transfer offsite.

KelPetro is proposing to installation of one 250 bbl fixed roof crude oil tank with a tank pressure relief or pressure/vacuum relief device. To offset the increase in emissions associated with tank C-5870-13, KelPetro is requesting to limit the TVP of the crude oil stored in tank C-5870-1-2 to 5.0 psi.

**V. Equipment Listing**

Pre-Project Equipment Description:

C-5870-1-1: ONE 21,000 GALLON (500 BBL) FIXED-ROOF CRUDE OIL STORAGE TANK - 21' D X 8' H. TANK ID# GOLDIN 1

Proposed Modification:

Limit the the crude oil stored in tank C-5870-1 to a maximum TVP of 5.0 psia and install one 250 bbl crude oil wash tank.

C-5870-1-2: MODIFICATION OF A 500 BBL FIXED-ROOF CRUDE OIL STORAGE TANK - 21' D X 8' H. TANK ID# GOLDIN 1: LIMIT TVP TO 5.0 PSIA

C-5870-13-0: 250 BBL FIXED ROOF WASH TANK EQUIPPED WITH PV VALVE (DONS-CERINI LEASE)

Post Project Equipment Description:

C-5870-1-2: 500 BBL FIXED-ROOF CRUDE OIL STORAGE TANK - 21' D X 8' H. TANK ID# GOLDIN 1

C-5870-13-0: 250 BBL FIXED ROOF WASH TANK EQUIPPED WITH PV VALVE (DONS-CERINI LEASE)

## VI. Emission Control Technology Evaluation

These tanks will be equipped with a pressure-vacuum (PV) relief vent valve set to within 10% of the maximum allowable working pressure of the tank. The PV-valve will reduce VOC wind induced emissions from the tank vent.

## VII. Emissions Calculations

### A. Assumptions

- Facility will operate 24 hours per day, 7 days per week, and 52 weeks per year.
- The tanks emit only volatile organic compounds (VOCs),
- Tank temperature, 120° F

C-5870-1-2:

- Pre Project TVP = 10.5 psi (Permit limit)
- Post Project TVP = 5.0 psi (applicant proposal)
- Applicant proposes 50 bbl/day throughput (permitted throughput)
- VOCs molecular weight, 50 lb/lbmol

C-5870-13-0:

- Post Project TVP = 5.0 psi (applicant proposal)
- Applicant proposes 150 bbl/day throughput (applicant proposal)
- VOCs molecular weight, 50 lb/lbmol
- Tank operates at constant level

### B. Emission Factors

Both the daily and annual PE's for each permit unit will be based on the results from the District's Microsoft Excel spreadsheets for Tank Emissions - Fixed Roof Crude Oil 26° API & Higher located in Attachment B. The spreadsheet for tanks was developed using the equations for fixed-roof tanks from EPA AP-42, Chapter 7.1.

### C. Calculations

#### 1. Pre-Project Potential to Emit, (PE<sub>1</sub>)

Tank C-5870-13-0 is a new emissions unit, the PE<sub>1</sub> = 0

Permit Unit	VOC - Daily PE1 (lb/day)	VOC - Annual PE1 (lb/Year)
C-5870-1-1	22.1	8064

**2. Post Project Potential to Emit, (PE<sub>2</sub>)**

Permit Unit	VOC - Daily PE2 (lb/day)	VOC - Annual PE2 (lb/Year)
C-5870-1-2	7.1	2591
C-5870-13-0	2.6	963
<b>Total</b>	<b>9.7</b>	<b>3554</b>

**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

The Pre-Project Stationary Source Potential to Emit (SSPE1) is summarized below (see **Attachment E** for details).

Pre-Project Stationary Source Potential to Emit [SSPE1] (lb/year)	
	VOC
Pre-Project SSPE (SSPE1)	66,084

**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.

The Prost-Project Stationary Source Potential to Emit (SSPE1) is summarized below:



Pre-Project Stationary Source Potential to Emit [SSPE2] (lb/year)	
	VOC
SSPE1	66,084
- C-5870-1-1	8064
+ C-5870-1-2	2591
+ C-5870-13-0	963
<b>SSPE2</b>	<b>61,574</b>

**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."

Major Source				
Pollutant	SSPE1 (lb/yr)	SSPE2 (lb/yr)	Major Source Threshold (lb/year)	Major Source?
VOC	66,084	61,574	20,000	Yes

Since the threshold value in the above table is exceeded, this facility is a Major Source.

**6. Baseline Emissions (BE)**

**a. Annual BE**

The annual BE is determined pollutant by pollutant to determine the amount of offsets required, where necessary, when the SSPE1 is greater than the offset threshold. For this project the annual BE will be determined to calculate quarterly Baseline Emissions (QBE)

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

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.

C-5870-1:

This tank is equipped with a PV-vent set to within 10% of maximum allowable pressure, which meets the requirements for achieved-in-practice BACT. Therefore, Baseline Emissions (BE) are equal to the Pre-Project Potential to Emit (PE1).

Permit unit	Annual PE1 (lb/Year)
C-5870-1-1	8064

C-5870-13:

Since tank C-5870-13-0 is a new emissions unit, the annual BE is equal to zero.

**7. SB 288 Major Modification**

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

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

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
VOC	3554	50,000	No

Since SB 288 Major Modification Threshold for VOCs was not surpassed with this project, this project does not constitute a SB288 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.

For new tank C-5870-13, the increase in emissions is equal to the PE2.

For existing emissions units (C-5870-1), the increase in emissions is calculated as follows.

$$\text{Emission Increase} = \text{PAE} - \text{BAE} - \text{UBC}$$

Where: PAE = Projected Actual Emissions, and  
BAE = Baseline Actual Emissions  
UBC = Unused baseline capacity

If there is no increase in design capacity or potential to emit, the PAE is equal to the annual emission rate at which the unit is projected to emit in any one year, selected by the operator, within 5 years after the unit resumes normal operation. Because a detailed PAE was not provided, the PAE is equal to the PE2 for each permit unit.

The BAE is calculated based on historical emissions and operating records for any 24 month period, selected by the operator, within the previous 10 year period. The BAE is adjusted to exclude any non-compliant operation emissions and emissions that are no longer allowed due to lower applicable emission limits that were in effect when this application was deemed complete.

UBC: Since this project does not result in an increase in design capacity or potential to emit, and it does not impact the ability of the emission unit to operate at a higher utilization rate, the UBC is the portion of PAE that the emission units could have accommodated during the baseline period.

The project's combined total emission increase is equal to the increase in emissions associated with permit unit C-5870-13-0 and compared to the Federal Major Modification Threshold in the following table.

Federal Major Modification Thresholds for Emission Increases			
Pollutant	Total Emissions Increases (lb/yr)	Thresholds (lb/yr)	Federal Major Modification?
VOC*	964	0	Yes

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

Since the Federal Major Modification Threshold is being surpassed with this project, this project constitutes a Federal Major Modification and no further analysis is required.

### 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:

QNEC = PE2 - BE, where:

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

Quarterly NEC [QNEC]			
Permit #	PE2 (lb/qtr)	BE1 (lb/qtr)	QNEC (lb/qtr)
C-5870-1-2	648	2016	-1368
C-5870-13-0	241	0	241

## VIII. Compliance

### Rule 2201 - New and Modified Stationary Source Review Rule

#### A. BACT

##### 1. BACT Applicability

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

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

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

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

The applicant is proposing to install a new tank (C-5870-13-0) with a PE of 2.6 lb/day for VOC as calculated in section VII.C.2. Since the daily VOC emissions are greater than 2.0 lbs/day, BACT will be required for the tank.

##### 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**

##### Adjusted Increase in Permitted Emissions (AIPE)

AIPE = PE2 – HAPE where,

AIPE = Adjusted Increase in Permitted Emissions, lb/day.  
PE2 = the emission unit's post project Potential to Emit, lb/day.  
HAPE = the emission unit's Historically Adjusted Potential to Emit, lb/day.

Historically Adjusted Potential to Emit (HAPE) Calculations:

$HAPE = PE1 \times (EF2 / EF1)$  where,

PE1 = The emission unit's Potential to Emit prior to modification or relocation.

EF2 = The emission unit's permitted emission factor for the pollutant after modification or relocation. If EF2 is greater than EF1 then EF2/EF1 shall be set to 1.

EF1 = The emission unit's permitted emission factor for the pollutant before the modification or relocation.

$EF1 = EF2$

$AIPE \text{ (lb/day)} = PE2 \text{ (lb/day)} - [PE1 \text{ (lb/day)} \times (EF2/EF1)]$

$AIPE \text{ (lb/day)} = 2.6 \text{ lb/day} - [22.1 \text{ (lb/day)} \times (1)]$

The applicant is proposing to modify its existing emissions unit with an AIPE of - 19.5 lb/day for VOC as calculated in the previous section. Since the daily VOC emissions are less than 2.0 lbs/day, BACT will not be required for tank C-5870-1-2.

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

As discussed in Section VII.C.7 above, this project does not constitute a SB 288 and/or Federal Major Modification for VOC emissions; therefore, BACT is not triggered for any pollutant.

As discussed in Section VII.C.8 above, this project does constitute a SB 288 and/or Federal Major Modification for VOC emissions; therefore, BACT is triggered for VOC for all tanks (C-5870-13-0) in the project for which there is an emission increase.

**2. BACT Guidance**

BACT Guideline 7.3.1, applies to Petroleum and Petrochemical Production – Fixed Roof Organic Liquid Storage or Processing Tank, < 5,000 bbl tank capacity (see Attachment C)

**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.

The applicant is proposing to use PV relief valve on the tank vent set to within 10% of maximum allowable pressure. The technologically feasible option of waste gas incinerated in a steam generator, heater treater, or other fired equipment and inspection and maintenance program at 99% control are not cost effective; the following proposed equipment satisfies the BACT requirement (see BACT Guideline 7.3.1):

VOC: pressure and vacuum (PV) relief valve on tank vent set to within 10% of maximum allowable pressure

## 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 or exceeds the offset threshold levels 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 Applicability			
Pollutant	SSPE2 (lb/yr)	Offset Threshold Levels (lb/yr)	Offsets Required?
VOC	>20,000	20,000	Yes

### 2. Quantity of Offsets Required

As seen above, the SSPE2 is greater than the offset threshold; 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 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)

The facility is proposing to install a new emissions unit; therefore Baseline Emissions are equal to zero. 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) =  $(\sum[PE2 - BE] + ICCE) \times DOR$

Tank C-5870-1-2:

PE2 = 2591 lb-VOC/year  
BE = 8064 lb-VOC/year

Tank C-5870-13-0:

PE2 = 963 lb-VOC/year  
BE = 0 lb-VOC/year

ICCE = 0 lb-VOC/year

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

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

Offsets Required (lb/year) =  $((2591-8094) + (963-0) + 0) \times 1.5$   
=  $-4510 \times 1.5$   
= 0 lb VOC/year

As demonstrated in the calculation above, the amount of offsets is zero; therefore, offsets will not be required for this project.



## **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 SSPE 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 does not constitute a SB 288 major Modification; therefore, public noticing for SB 288 Major Modification purposes is not required.

As demonstrated in VII.C.8, this project is a Federal Major Modification; therefore, public noticing for Federal Major Modification purposes is required.

#### **b. PE > 100 lb/day**

Applications which include a new emissions unit with a 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?
VOC	66,084	61,574	20,000 lb/year	No

As detailed above, the VOC threshold was not 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. 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:

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?
VOC	61,574	66,084	-4510	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. 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 Emissions Limits (DEL)**

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.

DELs for the emission units in this project will be included on the ATCs in the form of tanks' throughput and the tank contents' maximum true vapor pressure (TVP). The permittee will be required to maintain accurate records of tank content TVP and tanks monthly average daily throughput to validate the DEL.

## **E. Compliance Assurance**

The following measures shall be taken to ensure continued compliance with District Rules:

### **1. Source Testing**

The permittee will be required to perform periodic TVP testing for all tanks in this project using the latest EPA and CARB approved version of the Lawrence Berkeley National Laboratory "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph" to validate non-applicability of Rule 4623. The testing shall be conducted once every 24 month period or every time when the source of liquid stored is changed.

### **2. Monitoring**

Monitoring is not required.

### **3. Record Keeping**

Record keeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. The following conditions will appear on the permits:

- Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 2201] N
- All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201] N

### **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. However, since VOCs are the only criteria pollutant associated with the project and VOCs are not evaluated in an AAQA, no further review was performed for the Ambient Air Quality Analysis.

## **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 facility is a new major source and this project does constitute a Title I modification, therefore this requirement is applicable. Included in **Attachment F** is KelPetro's compliance certification.

## **H. Alternate Siting Analysis**

The current project occurs at an existing facility. The applicant proposes to install a new tank.

Since the project will provide oil storage and processing at the location KelPetro currently operates, 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 4101 - Visible Emissions**

Rule 4101 states that no air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity.

As long as the equipment is properly maintained and operated, compliance with visible emissions limits is expected under normal operating conditions.

### **Rule 2520 - Federally Mandated Operating Permits**

Pursuant to their current operating permit, this facility is an existing major source; however, the facility has not received their Title V permit. An application to

comply with Rule 2520 - *Federally Mandated Operating Permits* has already been submitted to the District. Therefore, no action is required at this time.

#### **Rule 4102 - Public Nuisance**

Rule 4102 states that no air contaminant shall be released into the atmosphere which causes a public nuisance. Compliance 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 or equal to one. According to the Technical Services Memo for this project (**Attachment G**), the total facility prioritization score including this project was less than or equal to one. Therefore, no future analysis is required to determine the impact from this project and compliance with the District's Risk Management Policy is expected.

#### **Rule 4623, Storage of Organic Liquids**

This rule applies to any tank with a capacity of 1,100 gallons or greater in which any organic liquid is placed, held, or stored.

According to the information provided by the applicant, [facility name] produces on average less than 6,000 barrels per day of crude oil from all operations within the county and does not engage in refining, transportation, or marketing of refined petroleum products. Therefore, under Section 3.29 of this rule and District Rule 1020, Section 3.45, this facility is a small producer. Therefore, the following condition shall be placed on the ATC:

{2491} Permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Fresno County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rule 4623] N

According to Section 4.3, except for complying with Sections 6.3.4 and 7.2, a small producer's tank with a throughput of 50 barrels of crude oil per day or less is exempt from the requirements of this rule.

Proposed tank C-5870-13-0 has a throughput of less than 50 bbls of crude oil per day. Therefore, the following conditions shall be placed on the permit:

Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rules 2201 & 4623] N

Permittee shall maintain monthly records of average daily crude oil throughput and shall submit such information to the APCO 30 days prior to the expiration date indicated in the Permit to Operate. [District Rules 2201 & 4623] N

All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 & 4623] N

Applicant also states that tank S-5870-13-0 will store crude oil with a TVP of 3.88 and the tank has a 250 bbl capacity. Daily throughput is expected to be 150 bbls. Therefore the following conditions will apply:

This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 & 4623] N

{2486} This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623] N

{2487} This tank shall be in a leak-free condition. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623. [District Rule 4623] N

{Modified 2910} Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank upon initial start-up, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2201 and 4623] N

The permittee shall conduct API gravity testing upon initial start-up. [District Rules 4623] N{2483}

The TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic

Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] N

{2913} The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 4623] N

{2490} All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4623] N

Compliance with the requirements of this rule is expected.

#### **CH&SC 42301.6 California Health & Safety Code (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 tanks are equipped with a PV-vent set to within 10% of maximum allowable pressure satisfies the Best Performance Standards (BPS) for Front-line Organic Liquid Storage Tanks, Fixed Roof Tanks < 5,000 bbl. The District therefore concludes that the project would have a less than cumulatively significant impact

on global climate change and no other discussion for green house gas emissions is required.

**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. Recommendations**

Issue Authorities to Construct C-5870-1-2 and '-13-0 subject to the permit conditions on the attached draft Authority to Construct.

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue Authority to Construct C-5870-1-2 and '-13-0 subject to the permit conditions on the attached draft Authority to Construct in Attachment H.

**X. Billing Information**

Permit Number	Fee Schedule	Fee Description	Annual Fee
C-5870-1-2	3020-5S-C	500 BBL	\$63.00
C-5870-13-0	3020-05-B	250 BBL	\$44.00

- ATTACHMENT A: Current PTO
- ATTACHMENT B: Emissions Calculations
- ATTACHMENT C: BACT Guideline
- ATTACHMENT D: Top Down BACT Analysis
- ATTACHMENT E: Pre-Project Stationary Source Potential to Emit (SSPE1)
- ATTACHMENT F: Compliance Certification
- ATTACHMENT G: Health Risk Assessment
- ATTACHMENT H: Draft ATC(s)



**Attachment A**  
**Current PTO**

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-5870-1-1

EXPIRATION DATE: 09/30/2012

SECTION: 22 TOWNSHIP: 17S RANGE: 19E

**EQUIPMENT DESCRIPTION:**

ONE 21,000 GALLON (500 BBL) FIXED-ROOF CRUDE OIL STORAGE TANK - 21' D X 8' H. TANK ID# GOLDIN 1

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
3. Permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Fresno County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rule 4623]
4. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 4623]
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not to exceed 10.5 psia under all storage conditions. [District Rules 2201]
6. VOC emission rate from the tank shall not exceed 44.8 lb/day. [District Rule 2201]
7. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201]
8. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 2201]
9. This tank shall be in a leak-free condition. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623. [District Rule 2201]
10. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2201]
11. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. Inspection log and all other records shall be retained on-site for a minimum of five (5) years and made available for APCO upon request, except for certain records that need to be submitted as specified in this permit. [District Rules 2201 and 4623, 6.3]
12. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2201]
14. True vapor pressure (TVP) testing to demonstrate compliance with Rule 1081 shall be conducted during the first summer months (July - September) of operation. [District Rules 1081]
15. The true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the oil and gas section of the "California Air Resources Board's (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588," dated August 1989. [District Rules 2201]
16. An operator shall submit the records of TVP and API gravity testing conducted in accordance with the testing requirements of Rule 2201 to the APCO within 45 days after the date of testing. The record shall include the tank identification number, PTO number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 2201]
17. Formerly permit #C-1553-1-1.

These terms and conditions are part of the Facility-wide Permit to Operate.

## **Attachment B Emissions Calculations**

TANK ID	TANK USE	SJVUAPCD PERMIT #	TANK TYPE H OR V	SHELL DIMENSIONS		CAPACITY (BBL)	ROOF TYPE (C/D)	VENT PSIG	
				D (FT)	Hs (FT)			VAC.	PRESS.
C-5870-1-1	stock	0.00	VERTICAL	21.0	8.0	493.5	CONE	-0.03	0.03

TANK ROOF		PAINT FACTOR	LIQUID DATA				CONSTANT LEVEL?	VAPOR MOL. WT.	VOC CNTRL %EFF (w/w)
COND.	COLOR		TYPE	Ht=H(lx)	Kp	RVP			
GOOD	GRAY	0.68	CRUDE	18.0	0.75	6.70	NO	50.00	0.0

**\*\*UNCONTROLLED EMISSIONS\*\***

CALENDAR		SURFACE T(la) F	CALC TVP @ T(la)	RATE (BBL/MON)	TURNOVER PER MON.	FAC-(Kn)	VOC (LBM/MONTH)			TOTAL (LBM/QTR)
QUARTER	MONTH						Ls	Lw	TOTAL (Lt)	
FIRST	JANUARY	63.30	4.57	1550	1.40	1.000	125.32	265.45	390.77	1378.80
	FEBRUARY	67.50	4.92	1400	1.26	1.000	165.67	258.52	424.19	
	MARCH	71.54	5.29	1550	1.40	1.000	256.42	307.42	563.84	
SECOND	APRIL	76.59	5.77	1500	1.35	1.000	352.36	324.77	677.13	2486.22
	MAY	82.17	6.35	1550	1.40	1.000	485.97	369.06	855.04	
	JUNE	86.51	6.83	1500	1.35	1.000	570.01	384.04	954.05	
THIRD	JULY	88.94	7.11	1550	1.40	1.000	629.62	413.12	1042.73	2753.69
	AUGUST	87.00	6.88	1550	1.40	1.000	550.47	400.04	950.51	
	SEPTEMBER	82.28	6.36	1500	1.35	1.000	402.61	357.84	760.45	
FOURTH	OCTOBER	75.71	5.69	1550	1.40	1.000	288.10	330.57	618.67	1445.06
	NOVEMBER	67.78	4.95	1500	1.35	1.000	166.80	278.42	445.22	
	DECEMBER	62.82	4.53	1550	1.40	1.000	118.04	263.14	381.18	

**\*\*CONTROLLED EMISSIONS (BASED ON MONTHLY CALCULATIONS)\*\***

CALENDAR		SURFACE T(la) F	CALC TVP @ T(la)	RATE (BBL/QTR)	TURNOVER PER QTR.	FAC-(Kn)	VOC (LBM/QTR)		
QUARTER	MONTH						Ls	Lw	TOTAL (Lt)
FIRST	JAN-MAR	67.44	4.93	4500	4	1.000	547	831	1379
SECOND	APR-JUN	81.76	6.32	4550	4	1.000	1408	1078	2486
THIRD	JUL-SEP	86.07	6.78	4600	4	1.000	1583	1171	2754
FOURTH	OCT-DEC	68.77	5.05	4600	4	1.000	573	872	1445
QUARTERLY AVERAGE		76.01	5.77	4563			1028	988	2016
DAILY AVERAGE (LB/DAY, BASED ON MONTHLY CALCULATIONS)							11.3	10.8	22.1
ANNUAL EMISSIONS (LB/YEAR, BASED ON MONTHLY CALCULATIONS)							4111	3952	8064

Tank Emission Calculation Spreadsheet, version 01/23/03

## \*\*FOR REFERENCE\*\* PAINT TABLE

PAINT COLOR	SHADE/TYPE	PAINT FACTORS PAINT CONDITION	
		GOOD	POOR
ALUMINUM	SPECULAR	0.39	0.49
ALUMINUM	DIFFUSE	0.80	0.88
GRAY	LIGHT	0.54	0.63
GRAY	MEDIUM	0.68	0.74
RED	PRIMER	0.89	0.91
WHITE	--NONE--	0.17	0.34

LIQUID TYPE	CODE	
CRUDE OIL	0	CRUDE
MOTOR GASOLINE	1	MOTOR GAS
AVIATION GASOLINE	2	AV GAS
LIGHT NAPHTHA (RVP 9-14 PSIA)	3	LT NAPHTHA
NAPHTHA (RVP 2-8 PSIA)	4	NAPHTHA

METEOROLOGICAL DATA CODES	
AREA	CODE
BAKERSFIELD	0
FRESNO	1
STOCKTON	2

\*\*PRESS [TAB] TO SKIP TO NEXT MODIFIABLE CELL\*\*

**GIVEN AND ASSUMED DATA**	
USING THE CODES ABOVE, WHAT REGION PERMIT NUMBERS DO YOU WANT TO USE? (0, 1, OR 2)	0
USING THE CODES ABOVE, WHAT AREA METEOROLOGICAL DATA DO YOU WANT TO USE? (0, 1, 2, ...)	0
REID VAPOR PRESSURE (psia)	6.70
VAPOR MOLECULAR WEIGHT (Mv)	50.00
USING THE CODES ABOVE, WHAT TYPE OF ORGANIC LIQUID (0, 1, 2, ...)	0
VOC CONTROL EFFICIENCY	0.00
TANK SHELL DIAMETER (FEET)	21.00
TANK SHELL HEIGHT, Hs (FEET)	8.00
VENT VACUUM (ENTER "-" FOLLOWED BY A VALUE IN PSIG)	-0.03
VENT PRESSURE (POSITIVE psig)	0.03
TANK ID	C-5870-1-1
TANK USE	stock
SJVUAPCD PERMIT#	
CONE OR DOME ROOF (C/D)	C
MAXIMUM TOTAL DAILY THROUGHPUT (BBL/DAY)	50.00
MIN LIQUID HEIGHT (USE 0.0 FT FOR DEFAULT)	0.00
TANK ROOF PAINT CONDITION, GOOD OR POOR (G/P)	G
TANK ROOF PAINT COLOR, SEE ABOVE (A/G/R/W)	G
TANK ROOF PAINT SHADE, SEE ABOVE (S/D/L/M/P/N)	M
TANK SHELL PAINT CONDITION, GOOD OR POOR (G/P)	G
TANK SHELL PAINT COLOR, SEE ABOVE (A/G/R/W)	G
TANK SHELL PAINT SHADE, SEE ABOVE (S/D/L/M/P/N)	M

**MODIFIABLE DATA**	
---	---
---	---
---	Y
---	--NR--
---	3.0
CONE ROOF	---
GIVEN ROOF HEIGHT OR SLOPE (H/S)	S
---	0.84
TANK CONE ROOF SLOPE, Sr (DEFAULT=0.0625) (f/f)	0.0625
---	---
---	1.00
DO YOU WANT TO ENTER A MAX LIQUID HEIGHT? (Y/N)	N
---	---
DEFAULT MAX LIQUID HEIGHT (SHELL HT - 2.0 FT)	18.00
DO YOU WANT TO ENTER AN AVERAGE LIQUID HEIGHT? (Y/N)	Y
---	---
ENTER AVERAGE LIQUID HEIGHT (ft)	5.0
IS TANK CONSTANT LEVEL? (Y/N)	N
---	---
ARE THE CONTENTS OF THE TANK HEATED? (Y/N)	N
---	---

TANK ID	TANK USE	SJVUAPCD PERMIT #	TANK TYPE H OR V	SHELL DIMENSIONS		CAPACITY (BBL)	ROOF TYPE (C/D)	VENT PSIG	
				D (FT)	Hs (FT)			VAC.	PRESS.
C-5870-1-2	stock	0.00	VERTICAL	21.0	8.0	493.5	CONE	-0.03	0.03

TANK ROOF		PAINT FACTOR	LIQUID DATA				CONSTANT LEVEL?	VAPOR MOL. WT.	VOC CNTRL %EFF (w/w)
COND.	COLOR		TYPE	Ht=H(lx)	Kp	RVP			
GOOD	GRAY	0.68	CRUDE	18.0	0.75	3.20	NO	50.00	0.0

**\*\*UNCONTROLLED EMISSIONS\*\***

CALENDAR		SURFACE T(la) F	CALC TVP @ T(la)	RATE (BBL/MON)	TURNOVER PER MON.	FAC-(Kn)	VOC (LBM/MONTH)			TOTAL (LBM/QTR)
QUARTER	MONTH						Ls	Lw	TOTAL (Lt)	
FIRST	JANUARY	63.30	1.67	1550	1.40	1.000	34.04	97.31	131.35	457.37
	FEBRUARY	67.50	1.83	1400	1.26	1.000	44.95	96.08	141.03	
	MARCH	71.54	1.99	1550	1.40	1.000	69.25	115.74	184.99	
SECOND	APRIL	76.59	2.21	1500	1.35	1.000	94.11	124.24	218.35	786.89
	MAY	82.17	2.47	1550	1.40	1.000	127.28	143.64	270.92	
	JUNE	86.51	2.69	1500	1.35	1.000	146.16	151.45	297.62	
THIRD	JULY	88.94	2.82	1550	1.40	1.000	159.08	164.11	323.19	866.45
	AUGUST	87.00	2.72	1550	1.40	1.000	140.68	157.99	298.67	
	SEPTEMBER	82.28	2.48	1500	1.35	1.000	105.26	139.32	244.59	
FOURTH	OCTOBER	75.71	2.17	1550	1.40	1.000	77.01	126.11	203.12	480.25
	NOVEMBER	67.78	1.84	1500	1.35	1.000	45.20	103.57	148.77	
	DECEMBER	62.82	1.66	1550	1.40	1.000	32.05	96.31	128.36	

**\*\*CONTROLLED EMISSIONS (BASED ON MONTHLY CALCULATIONS)\*\***

CALENDAR		SURFACE T(la) F	CALC TVP @ T(la)	RATE (BBL/QTR)	TURNOVER PER QTR.	FAC-(Kn)	VOC (LBM/QTR)		
QUARTER	MONTH						Ls	Lw	TOTAL (Lt)
FIRST	JAN-MAR	67.44	1.83	4500	4	1.000	148	309	457
SECOND	APR-JUN	81.76	2.46	4550	4	1.000	368	419	787
THIRD	JUL-SEP	86.07	2.67	4600	4	1.000	405	461	866
FOURTH	OCT-DEC	68.77	1.89	4600	4	1.000	154	326	480
QUARTERLY AVERAGE		76.01	2.21	4563			269	379	648
DAILY AVERAGE (LB/DAY, BASED ON MONTHLY CALCULATIONS)							2.9	4.2	7.1
ANNUAL EMISSIONS (LB/YEAR, BASED ON MONTHLY CALCULATIONS)							1075	1516	2591

Tank Emission Calculation Spreadsheet, version 01/23/03

**\*\*FOR REFERENCE\*\* PAINT TABLE**

PAINT COLOR	SHADE/TYPE	PAINT FACTORS PAINT CONDITION	
		GOOD	POOR
ALUMINUM	SPECULAR	0.39	0.49
ALUMINUM	DIFFUSE	0.60	0.68
GRAY	LIGHT	0.64	0.83
GRAY	MEDIUM	0.88	0.74
RED	PRIMER	0.89	0.91
WHITE	--NONE--	0.17	0.34

LIQUID TYPE	CODE	
CRUDE OIL	0	CRUDE
MOTOR GASOLINE	1	MOTOR GAS
AVIATION GASOLINE	2	AV GAS
LIGHT NAPHTHA (RVP 9-14 PSIA)	3	LT NAPHTHA
NAPHTHA (RVP 2-8 PSIA)	4	NAPHTHA

METEOROLOGICAL DATA CODES	
AREA	CODE
BAKERSFIELD	0
FRESNO	1
STOCKTON	2

**\*\*PRESS [TAB] TO SKIP TO NEXT MODIFIABLE CELL\*\***

<b>**GIVEN AND ASSUMED DATA**</b>	
USING THE CODES ABOVE, WHAT REGION PERMIT NUMBERS DO YOU WANT TO USE? (0, 1, OR 2)	---
USING THE CODES ABOVE, WHAT AREA METEOROLOGICAL DATA DO YOU WANT TO USE? (0, 1, 2, ...)	0
REID VAPOR PRESSURE (psia)	3.20
VAPOR MOLECULAR WEIGHT (Mv)	50.00
USING THE CODES ABOVE, WHAT TYPE OF ORGANIC LIQUID (0, 1, 2, ...)	0
VOC CONTROL EFFICIENCY	0.00
TANK SHELL DIAMETER (FEET)	21.00
TANK SHELL HEIGHT, Hs (FEET)	8.00
VENT VACUUM (ENTER "-" FOLLOWED BY A VALUE IN PSIG)	-0.03
VENT PRESSURE (POSITIVE psig)	0.03
TANK ID	C-5870-1-2
TANK USE	stock
SJVJAPCD PERMIT#	
CONE OR DOME ROOF (C/D)	C
MAXIMUM TOTAL DAILY THROUGHPUT (BBU/DAY)	50.00
MIN LIQUID HEIGHT (USE 0.0 FT FOR DEFAULT)	0.00
TANK ROOF PAINT CONDITION, GOOD OR POOR (G/P)	G
TANK ROOF PAINT COLOR, SEE ABOVE (A/G/R/W)	G
TANK ROOF PAINT SHADE, SEE ABOVE (S/D/L/M/P/N)	M
TANK SHELL PAINT CONDITION, GOOD OR POOR (G/P)	G
TANK SHELL PAINT COLOR, SEE ABOVE (A/G/R/W)	G
TANK SHELL PAINT SHADE, SEE ABOVE (S/D/L/M/P/N)	M

<b>**MODIFIABLE DATA**</b>	
---	---
---	---
---	Y
---	--N/R--
---	3.0
CONE ROOF	---
GIVEN ROOF HEIGHT OR SLOPE (H/S)	S
---	0.94
TANK CONE ROOF SLOPE, Sr (DEFAULT=0.0625) (ft/ft)	0.0625
---	---
---	1.00
DO YOU WANT TO ENTER A MAX LIQUID HEIGHT? (Y/N)	N
---	---
---	18.00
DEFAULT MAX LIQUID HEIGHT (SHELL HT - 2.0 FT)	Y
DO YOU WANT TO ENTER AN AVERAGE LIQUID HEIGHT? (Y/N)	---
---	5.0
ENTER AVERAGE LIQUID HEIGHT (ft)	---
IS TANK CONSTANT LEVEL? (Y/N)	N
---	---
ARE THE CONTENTS OF THE TANK HEATED? (Y/N)	N
---	---



TANK ID	TANK USE	SJVUAPCD PERMIT #	TANK TYPE H OR V	SHELL DIMENSIONS		CAPACITY (BBL)	ROOF TYPE (C/D)	VENT PSIG	
				D (FT)	Hs (FT)			VAC.	PRESS.
C-5870-13-0	Wash	0.00	VERTICAL	15.0	8.0	251.8	CONE	-0.03	0.03

TANK ROOF		PAINT FACTOR	LIQUID DATA				CONSTANT LEVEL?	VAPOR MOL. WT.	VOC CNTRL %EFF (w/w)
COND.	COLOR		TYPE	Ht=H(lx)	Kp	RVP			
GOOD	GRAY	0.68	CRUDE	0.0	0.75	3.20	YES	50.00	0.0

**\*\*UNCONTROLLED EMISSIONS\*\***

CALENDAR		SURFACE T(la) F	CALC TVP @ T(la)	RATE (BBL/MON)	TURNOVER PER MON.	FAC-(Kn)	VOC (LBM/MONTH)			TOTAL (LBM/QTR)
QUARTER	MONTH						Ls	Lw	TOTAL (Lt)	
FIRST	JANUARY	63.30	1.67	4650	0.00	1.000	32.82	0.00	32.82	139.86
	FEBRUARY	67.50	1.83	4200	0.00	1.000	42.58	0.00	42.58	
	MARCH	71.54	1.99	4650	0.00	1.000	64.46	0.00	64.46	
SECOND	APRIL	76.59	2.21	4500	0.00	1.000	85.70	0.00	85.70	326.24
	MAY	82.17	2.47	4650	0.00	1.000	113.10	0.00	113.10	
	JUNE	86.51	2.69	4500	0.00	1.000	127.44	0.00	127.44	
THIRD	JULY	88.94	2.82	4650	0.00	1.000	137.23	0.00	137.23	353.12
	AUGUST	87.00	2.72	4650	0.00	1.000	122.39	0.00	122.39	
	SEPTEMBER	82.28	2.48	4500	0.00	1.000	93.49	0.00	93.49	
FOURTH	OCTOBER	75.71	2.17	4650	0.00	1.000	70.39	0.00	70.39	144.11
	NOVEMBER	67.78	1.84	4500	0.00	1.000	42.76	0.00	42.76	
	DECEMBER	62.82	1.66	4650	0.00	1.000	30.97	0.00	30.97	

**\*\*CONTROLLED EMISSIONS (BASED ON MONTHLY CALCULATIONS)\*\***

CALENDAR		SURFACE T(la) F	CALC TVP @ T(la)	RATE (BBL/QTR)	TURNOVER PER QTR.	FAC-(Kn)	VOC (LBM/QTR)		
QUARTER	MONTH						Ls	Lw	TOTAL (Lt)
FIRST	JAN-MAR	67.44	1.83	13500	0	1.000	140	0	140
SECOND	APR-JUN	81.76	2.46	13650	0	1.000	326	0	326
THIRD	JUL-SEP	86.07	2.67	13800	0	1.000	353	0	353
FOURTH	OCT-DEC	68.77	1.89	13800	0	1.000	144	0	144
QUARTERLY AVERAGE		76.01	2.21	13688			241	0	241
DAILY AVERAGE (LB/DAY, BASED ON MONTHLY CALCULATIONS)							2.6	0.0	2.6
ANNUAL EMISSIONS (LB/YEAR, BASED ON MONTHLY CALCULATIONS)							963	0	963

Tank Emission Calculation Spreadsheet, version 01/23/03

## \*\*FOR REFERENCE\*\* PAINT TABLE

PAINT COLOR	SHADE/ TYPE	PAINT FACTORS PAINT CONDITION	
		GOOD	POOR
ALUMINUM	SPECULAR	0.39	0.49
ALUMINUM	DIFFUSE	0.60	0.68
GRAY	LIGHT	0.54	0.63
GRAY	MEDIUM	0.68	0.74
RED	PRIMER	0.89	0.91
WHITE	--NONE--	0.17	0.34

LIQUID TYPE	CODE	
CRUDE OIL	0	CRUDE
MOTOR GASOLINE	1	MOTOR GAS
AVIATION GASOLINE	2	AV GAS
LIGHT NAPHTHA (RVP 9-14 PSIA)	3	LT NAPHTHA
NAPHTHA (RVP 2-8 PSIA)	4	NAPHTHA

METEOROLOGICAL DATA CODES	
AREA	CODE
BAKERSFIELD	0
FRESNO	1
STOCKTON	2

\*\*PRESS [TAB] TO SKIP TO NEXT MODIFIABLE CELL\*\*

**GIVEN AND ASSUMED DATA**	
USING THE CODES ABOVE, WHAT REGION PERMIT NUMBERS DO YOU WANT TO USE? (0, 1, OR 2)	0
USING THE CODES ABOVE, WHAT AREA METEOROLOGICAL DATA DO YOU WANT TO USE? (0, 1, 2, ...)	0
REID VAPOR PRESSURE (psia)	3.20
VAPOR MOLECULAR WEIGHT (Mv)	50.00
USING THE CODES ABOVE, WHAT TYPE OF ORGANIC LIQUID (0, 1, 2, ...)	0
VOC CONTROL EFFICIENCY	0.00
TANK SHELL DIAMETER (FEET)	15.00
TANK SHELL HEIGHT, Hs (FEET)	8.00
VENT VACUUM (ENTER "-" FOLLOWED BY A VALUE IN PSIG)	-0.03
VENT PRESSURE (POSITIVE psig)	0.03
TANK ID	C-5870-13-0
TANK USE	Wash
SJVUAPCD PERMIT#	
CONE OR DOME ROOF (C/D)	C
MAXIMUM TOTAL DAILY THROUGHPUT (BBL/DAY)	150.00
MIN LIQUID HEIGHT (USE 0.0 FT FOR DEFAULT)	0.00
TANK ROOF PAINT CONDITION, GOOD OR POOR (G/P)	G
TANK ROOF PAINT COLOR, SEE ABOVE (A/G/R/W)	G
TANK ROOF PAINT SHADE, SEE ABOVE (S/D/L/M/P/N)	M
TANK SHELL PAINT CONDITION, GOOD OR POOR (G/P)	G
TANK SHELL PAINT COLOR, SEE ABOVE (A/G/R/W)	G
TANK SHELL PAINT SHADE, SEE ABOVE (S/D/L/M/P/N)	M

**MODIFIABLE DATA**	
----	---
----	---
----	Y
----	--N/R--
----	3.0
CONE ROOF	---
GIVEN ROOF HEIGHT OR SLOPE (H/S)	S
----	0.94
TANK CONE ROOF SLOPE, S <sub>r</sub> (DEFAULT=0.0825) (1/ft)	0.0825
----	---
----	1.00
DO YOU WANT TO ENTER A MAX LIQUID HEIGHT? (Y/N)	N
----	---
DEFAULT MAX LIQUID HEIGHT (SHELL HT - 2.0 FT)	
DO YOU WANT TO ENTER AN AVERAGE LIQUID HEIGHT? (Y/N)	N
IF NO, THE AVERAGE LIQUID HEIGHT WILL BE CALCULATED	n
----	---
IS TANK CONSTANT LEVEL? (Y/N)	Y
IF YES, NUMBER OF TURNS PER MONTH (DEF.=0.33)	
ARE THE CONTENTS OF THE TANK HEATED? (Y/N)	N
----	---

TANK ID	TANK USE	SJVUAPCD PERMIT #	TANK TYPE H OR V	SHELL DIMENSIONS		CAPACITY (BBL)	ROOF TYPE (C/D)	VENT PSIG	
				D (FT)	Hs (FT)			VAC.	PRESS.
C-5870-1-1	stock	0.00	VERTICAL	21.0	8.0	493.5	CONE	-0.03	0.03

TANK ROOF		PAINT FACTOR	LIQUID DATA				CONSTANT LEVEL?	VAPOR MOL. WT.	VOC CNTRL %EFF (w/w)
COND.	COLOR		TYPE	Ht=H(lx)	Kp	RVP			
GOOD	GRAY	0.68	CRUDE	18.0	0.75	6.70	NO	50.00	0.0

**\*\*UNCONTROLLED EMISSIONS\*\***

CALENDAR		SURFACE T(la) F	CALC TVP @ T(la)	RATE (BBL/MON)	TURNOVER PER MON.	FAC-(Kn)	VOC (LBM/MONTH)			TOTAL (LBM/QTR)
QUARTER	MONTH						Ls	Lw	TOTAL (Lt)	
FIRST	JANUARY	63.30	4.57	1550	1.40	1.000	125.32	265.45	390.77	1378.80
	FEBRUARY	67.50	4.92	1400	1.26	1.000	165.67	258.52	424.19	
	MARCH	71.54	5.29	1550	1.40	1.000	256.42	307.42	563.84	
SECOND	APRIL	76.59	5.77	1500	1.35	1.000	352.36	324.77	677.13	2486.22
	MAY	82.17	6.35	1550	1.40	1.000	485.97	369.06	855.04	
	JUNE	86.51	6.83	1500	1.35	1.000	570.01	384.04	954.05	
THIRD	JULY	88.94	7.11	1550	1.40	1.000	629.62	413.12	1042.73	2753.69
	AUGUST	87.00	6.88	1550	1.40	1.000	550.47	400.04	950.51	
	SEPTEMBER	82.28	6.36	1500	1.35	1.000	402.61	357.84	760.45	
FOURTH	OCTOBER	75.71	5.69	1550	1.40	1.000	288.10	330.57	618.67	1445.06
	NOVEMBER	67.78	4.95	1500	1.35	1.000	166.80	278.42	445.22	
	DECEMBER	62.82	4.53	1550	1.40	1.000	118.04	263.14	381.18	

**\*\*CONTROLLED EMISSIONS (BASED ON MONTHLY CALCULATIONS)\*\***

CALENDAR		SURFACE T(la) F	CALC TVP @ T(la)	RATE (BBL/QTR)	TURNOVER PER QTR.	FAC-(Kn)	VOC (LBM/QTR)		
QUARTER	MONTH						Ls	Lw	TOTAL (Lt)
FIRST	JAN-MAR	67.44	4.93	4500	4	1.000	547	831	1379
SECOND	APR-JUN	81.76	6.32	4550	4	1.000	1408	1078	2486
THIRD	JUL-SEP	86.07	6.78	4600	4	1.000	1583	1171	2754
FOURTH	OCT-DEC	68.77	5.05	4600	4	1.000	573	872	1445
QUARTERLY AVERAGE		76.01	5.77	4563			1028	988	2016
DAILY AVERAGE (LB/DAY, BASED ON MONTHLY CALCULATIONS)							11.3	10.8	22.1
ANNUAL EMISSIONS (LB/YEAR, BASED ON MONTHLY CALCULATIONS)							4111	3952	8064

Tank Emission Calculation Spreadsheet, version 01/23/03

**Attachment C  
BACT Guideline**

San Joaquin Valley  
Unified Air Pollution Control District

**Best Available Control Technology (BACT) Guideline 7.3.1\***

Last Update 10/1/2002

**Petroleum and Petrochemical Production - Fixed Roof Organic  
Liquid Storage or Processing Tank, < 5,000 bbl Tank capacity \*\***

<b>Pollutant</b>	<b>Achieved in Practice or contained in the SIP</b>	<b>Technologically Feasible</b>	<b>Alternate Basic Equipment</b>
VOC	PV-vent set to within 10% of maximum allowable pressure	99% control ( Waste gas incinerated in steam generator, heater treater, or other fired equipment and inspection and maintenance program; transfer of noncondensable vapors to gas pipeline; reinjection to formation (if appropriate wells are available); or equal).	

\*\* Converted from Determinations 7.1.11 (10/01/02).

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 a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

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

## Attachment D Top Down BACT Analysis

### Top Down BACT Analysis

VOC emissions may occur when the produced fluids from the crude oil production wells enter the oil storage tanks.

#### **Step 1 - Identify All Possible Control Technologies**

BACT Guideline 7.3.1 lists the controls that are considered potentially applicable to fixed-roof organic liquid storage or processing tank <5,000 bbl tank capacity. The VOC control measures are summarized below.

##### *Technologically feasible:*

99% control (waste gas incinerated in steam generator, heater treater, or other fired equipment and inspection and maintenance program; transfer of uncondensed vapors to gas pipeline or reinjection to formation (if appropriate wells are available).

##### *Achieved in Practice:*

PV relief valve set to within 10% of maximum allowable pressure.

#### **Step 2 - Eliminate Technologically Infeasible Options**

All of the above identified control options are technologically feasible.

#### **Step 3 - Rank Remaining Control Technologies by Control Effectiveness**

1. 99% control (waste gas incinerated in steam generator, heater treater, or other fired equipment and inspection and maintenance program; transfer of uncondensed vapors to gas pipeline or reinjection to formation (if appropriate wells are available).
2. PV relief valve set to within 10% of maximum allowable pressure.

#### **Step 4 - Cost Effectiveness Analysis**

Applicant submitted a quote for the capital cost of vapor control system to address the technologically feasible control option is \$63,654.

The annualized capital cost is

AP = (P)  $\{[(i) (1 + i)^n]/[(1 + i)^n - 1]\}$ , where  
AP = Equivalent Annual Capital Cost of Control Equip.  
P = Present value of the control equipment, including installation cost.  
\$48,654  
i = interest rate (use 10% per policy)  
n = equipment life (assume 10 years per policy)

$$AP = (P) \{[(0.1) (1 + 0.1)^{10}]/[(1 + 0.1)^{10} - 1]\}$$
$$AP = (P) \times (0.16274) = (\$48,654) (0.1627) = \$10,357/\text{year}$$

For calculation of the amount of VOCs removed from the tank with the vapor control system, 100% control is assumed. The VOCs removed annually are

$$\text{Tons/yr} = 963 \text{ lb/yr}/2000 \text{ lb/ton} = 0.48 \text{ tons/yr}$$

$$\text{Annualized cost} = \$10,357 \text{ yr}/0.48 \text{ tons/yr}$$
$$= \$21,577/\text{ton}$$

This exceeds the cost effectiveness threshold for VOCs of \$17,500/ton. Therefore the vapor control system is not cost effective.

#### **Step 5 - Select BACT**

PV relief valve set to within 10% of maximum allowable pressure of the tank

**Attachment E**  
**Pre-Project Stationary Source Potential to Emit**



# Detailed SSPE Report

Region	Facility	Unit	Mod	NOx	SOx	PM10	CO	VOC	Number of Outstanding ATCs
C	5870	0	0						0
C	5870	1	1	0	0	0	0	8064	0
C	5870	2	1	0	0	0	0	6741	0
C	5870	3	0	0	0	0	0	191	0
C	5870	4	1	0	0	0	0	21687	0
C	5870	5	0	0	0	0	0	631	0
C	5870	6	1	0	0	0	0	5192	0
C	5870	7	0	0	0	0	0	2358	0
C	5870	8	0	0	0	0	0	12553	0
C	5870	9	0	0	0	0	0	2492	0
C	5870	10	0	0	0	0	0	1796	0
C	5870	11	0	0	0	0	0	3782	0
C	5870	12	0	0	0	0	0	597	0
<i>SSPE (lbs)</i>				0	0	0	0	66084	

Tuesday, May 22, 2012

Page 1 of 1

**Notes:**

Blank values for a particular permit unit do not necessarily reflect zero emissions. For units with blank values, the PE must still be determined based on physical PE or as limited by permit condition.

For permits that show outstanding ATCs, consult PAS ATC Emission Profile records to determine what the highest PE is for each pollutant.

ATCs for new units (e.g. S-XXXX-X-0) must be added in separately.

ERC's for onsite reductions must be added in separately per Rule 2201 as well.

**Attachment F**  
**Compliance Certification**

# KELPETRO OPERATING, INC.

---

April 19, 2012

Mr. Leonard Scandura  
San Joaquin Valley Unified APCD  
34948 Flyover Court  
Bakersfield, CA 93308

**Subject: ATC Application for 250 bbl Wash Tank – Dons-Cereni Lease (C-5870)**

Dear Mr. Scandura:

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

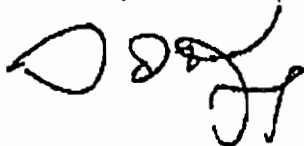
Alternative siting analysis is required for any project, which constitutes a New Major Source or a Federal Major Modification.

The current project occurs at an existing facility. The applicant proposes to activate wells that will provide production capacity to existing operations at the site.

The project will provide production capacity to be used at the same location, the existing site will result in the least possible impact from the project.

If you have any questions or need further information, please contact Scott Faulkenburg with Envirotech Consultants at (861) 377-0073 x-15.

Sincerely,



Donald J. Kelly  
President

cc: Scott Faulkenburg

## **Attachment G Health Risk Assessment**

**San Joaquin Valley Air Pollution Control District  
Risk Management Review**

To: Steve Davidson – Permit Services  
 From: Trevor Joy – Technical Services  
 Date: April 30, 2012  
 Facility Name: Kelpetro Operating Inc.  
 Location: Section 22, 17S 19E  
 Application #(s): C-5870-1-2 & 13-0  
 Project #: C-1120431

**A. RMR SUMMARY**

<b>RMR Summary</b>			
<b>Categories</b>	<b>Fugitive Emissions from Tanks (Units 1-2 &amp; 13-0)</b>	<b>Project Totals</b>	<b>Facility Totals</b>
<b>Prioritization Score</b>	<b>0.2*</b>	0.2	0.6
<b>Acute Hazard Index</b>	N/A	N/A	N/A
<b>Chronic Hazard Index</b>	N/A	N/A	N/A
<b>Maximum Individual Cancer Risk</b>	N/A	N/A	N/A
<b>T-BACT Required?</b>	<b>No</b>		
<b>Special Permit Conditions?</b>	<b>No</b>		

\*The project passed on prioritization with a score less than 1; therefore, no further analysis was required.

**B. Proposed Permit Conditions**

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

Unit # 13-0

No special conditions are required.

**C. RMR REPORT**

**I. Project Description**

Technical Services received a request on April 14, 2012, to perform a Risk Management Review for the modification of tank 1-2 and the installation of tank 13-0. Since the modification of 1-2 will result in a decrease in emissions, no further analysis was required.

**II. Analysis**

Toxic emissions from the project were calculated using "Oilfield Equipment Fugitives Heavy Crude Oil", along with VOC fugitive emission rates calculated and supplied by the processing engineer. In accordance with the District's *Risk Management Policy for Permitting New and Modified Sources* (APR 1905-1, March 2, 2001), risks from the proposed project were prioritized using the procedures in the 1990 CAPCOA Facility Prioritization Guidelines and incorporated in the District's HEART's database. The prioritization score for the proposed project was less than 1.0 (see RMR Summary Table). Therefore, no further analysis was necessary.

The following parameters were used for the review:

Unit 13-0			
Fugitive VOC emissions (lbs/hr)	0.11	Fugitive VOC emissions (lbs/yr)	963
Closest Receptor (m)	120		

An AAQA for the project was requested. Since VOCs are the only criteria pollutant associated with the project and VOCs are not evaluated in an AAQA, no further review was performed.

**III. Conclusion**

The proposed equipment will not cause or significantly contribute to a violation of a State or National AAQS. The prioritization score for this project is not above 1.0. 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.

**Attachments:**

- A. RMR Request
- B. Prioritization Score
- C. Toxic Emissions Summary
- D. Facility Summary

**Attachment H**  
**Draft ATCs**

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

PERMIT NO: C-5870-1-2

LEGAL OWNER OR OPERATOR: KELPETRO OPERATING INC.

MAILING ADDRESS: 5555 SAN FELIPE, STE 610  
HOUSTON, TX 77056

LOCATION: GAS PRODUCTION  
FRESNO COUNTY, CA

SECTION: 22 TOWNSHIP: 17S RANGE: 19E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF A 500 BBL FIXED-ROOF CRUDE OIL STORAGE TANK - 21' D X 8' H. TANK ID# GOLDIN 1: LIMIT TVP TO 5.0 PSIA

**CONDITIONS**

1. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
3. Permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Fresno County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rules 2201 and 4623]
4. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rules 2201 and 4623]
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not to exceed 5.0 psia under all storage conditions. [District Rules 2201]
6. VOC emission rate from the tank shall not exceed 7.1 lb/day. [District Rule 2201]
7. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 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

C-5870-1-2: May 17 2012 9:16AM - DAVIDBOG : Joint Inspection NOT Required



8. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 2201]
9. This tank shall be in a leak-free condition. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623. [District Rule 2201]
10. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2201]
11. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 2201]
12. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
13. For crude oil with an API gravity greater than 26 degrees, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the oil and gas section of the "California Air Resources Board's (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588," dated August 1989. [District Rules 2201]
14. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 2201]
15. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2201]
16. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. Inspection log and all other records shall be retained on-site for a minimum of five (5) years and made available for APCO upon request, except for certain records that need to be submitted as specified in this permit. [District Rules 2201 and 4623, 6.3]
17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 2201]
18. Formerly permit #C-1553-1-1.

DRAFT

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

PERMIT NO: C-5870-13-0

LEGAL OWNER OR OPERATOR: KELPETRO OPERATING INC.

MAILING ADDRESS: 5555 SAN FELIPE, STE 610  
HOUSTON, TX 77056

LOCATION: GAS PRODUCTION  
FRESNO COUNTY, CA

SECTION: 22 TOWNSHIP: 17S RANGE: 19E

**EQUIPMENT DESCRIPTION:**

250 BBL FIXED ROOF WASH TANK EQUIPPED WITH PV VALVE (DONS-CERINI LEASE)

**CONDITIONS**

1. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
3. Permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Fresno County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rules 2201 and 4623]
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not to exceed 5.0 psia under all storage conditions. [District Rules 2201 and 4623]
5. VOC emission rate from the tank shall not exceed 2.6 lb/day. [District Rule 2201 and 4623]
6. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201]
7. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 2201 and 4623]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 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 APCD

**DAVID WARNER**, Director of Permit Services

C-5870-13-0: May 24 2012 8:09AM - DAVIDSOS : Joint Inspection NOT Required

8. This tank shall be in a leak-free condition. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623. [District Rules 2201 and 4623]
9. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 2201 and 4623]
10. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program [District Rules 2201 and 4623]
11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623]
12. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rules 2201 and 4623]
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rules 2201 and 4623]
14. For crude oil with an API gravity greater than 26 degrees, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the oil and gas section of the "California Air Resources Board's (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588," dated August 1989. [District Rules 2201 and 4623]
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