San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

JAN 2 2 2020

Donald Kelly
KelPetro Operating Company
PO Box 3388
Santa Monica, CA 90408

Re: Notice of Preliminary Decision - Authority to Construct
Facility Number: C-5870
Project Number: C-1192168

Dear Mr. Kelly:

Enclosed for your review and comment is the District's analysis of KelPetro Operating Company's application for an Authority to Construct for a new tank, in Fresno County.

The notice of preliminary decision for this project has been posted on the District's website (www.valleyair.org). After addressing all comments made during the 30-day public notice and 45-day EPA notice comment periods, the District intends to issue the Authority to Construct. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

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

Sincerely,

Arnaud Marjollet
Director of Permit Services

AM:rue

Enclosures

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

Samir Sheikh
Executive Director/Air Pollution Control Officer

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www.valleyair.org www.healthyairliving.com

Authority to Construct Application Review

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

Facility Name:	KelPetro Operating Inc	Date:	January 15, 2020
Mailing Address:	PO Box 3388 Santa Monica, CA 90408	Engineer:	Richard Edgehill
		Lead Engineer:	Richard Karrs
Contact Person:	Donald J. Kelly and Scott Faulkenburg		
Telephone:	(661) 377-0073 x 15 (SF)		
Application #(s):	C-5870-6-3 and '-15-0		
Project #:	C-1193168		
Deemed Complete:	October 31, 2019		

I. Proposal

KelPetro Operating Inc (Kelpetro) is applying for Authorities to Construct (ATC) permits for the installation of new 200 bbl stock tank (C-5870-15) and conversion of a 500 bbl stock tank (C-5870-6) to a wash tank. PTO C-5870-5-0 for a 250 bbl wash tank will be cancelled.

The project triggers BACT and public notice (the project is a Federal Major Modification). Offsets are not required.

C-5870 is a Rule 2530 Source. The facility does not have a Title V PTO.

Current PTOs are included in **Attachment I**.

II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (8/15/19)
Rule 2520 Federally Mandated Operating Permits (8/15/19)
Rule 2530 Federally Enforceable Potential to Emit (12/18/19)
Rule 4101 Visible Emissions (04/20/05)
Rule 4102 Nuisance (12/17/92)
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 equipment will be located at the facility's Fontes/Courtney lease in Fresno County, within the NW/4 of Section 23, 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 tanks and vessels receive production from the Fontes Courtney Lease prior to custody transfer.

V. Equipment Listing

Pre-Project Equipment Description:

C-5870-5-0: ~~250 BBL FIXED ROOF WASH TANK - 10' D X 16' H~~ (TO BE CANCELLED)

C-5870-6-1: 500 BBL FIXED ROOF STOCK TANK - 15' D X 16' H

Proposed Modification:

C-5870-6-3: MODIFICATION OF 500 BBL FIXED ROOF STOCK TANK - 15' D X 16' H: CHANGE TO WASH TANK

Post-Project Equipment Description:

C-5870-6-3: 500 BBL FIXED ROOF WASH TANK - 15' D X 16' H (FONTES COURTNEY LEASE)

C-5870-15-0: 250 BBL FIXED ROOF STOCK TANK EQUIPPED WITH P/V RELIEF VALVE (FONTES COURTNEY LEASE)

VI. Emission Control Technology Evaluation

The existing and new 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),
- VOCs molecular weight, 50 lb/lbmol
- Tank unheated
- Pre-project assumptions for the tanks are listed in the table below.

Unit	Service Dimensions	RVP Limit	Throughput Limit (bbl/day)
C-5870-5-0	225 bbl wash 10' x 16'	5 psia	150
C-5870-6-1	500 bbl stock 15' dia, 16' height	5 psia	90

- Post-project conditions for the tanks are listed in the table below.

Unit	Service Dimensions	TVP Limit	Throughput Limit (bbl/day)
C-5870-6-3	500 bbl, Wash 15' dia, 16' height	5 psia	90
C-5870-15-0	250 bbl, Wash 15' dia, 8' height	5 psia	50

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 and higher located in **Attachment II.**

C. Calculations

1. Pre-Project Potential to Emit, (PE_1)

Permit Unit	VOC - Daily PE1 (lb/day)	VOC - Annual PE1 (lb/Year)
C-5870-5-0 (to be cancelled)	1.7	631
C-5870-6-1*	10.9	3,979

* Corrected in this project, emissions in PAS are erroneously high as they are based on tvp = 6 psia

C-5870-15

Since this is a new emissions unit, the $PE_1 = 0$

2. Post Project Potential to Emit, (PE_2)

Permit Unit	VOC - Daily PE2 (lb/day)	VOC - Annual PE2 (lb/Year)
C-5870-6-3	2.4	881
C-5870-15-0	5.7	2,096

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

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

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

Applicant stipulates that the pre-project, facility-wide VOC emissions exceed both the offset threshold for VOC's (20,000 lb VOC/ yr) and the Major Source threshold for VOC's (20,000 lb VOC/ yr). No other pollutants are emitted by this project; therefore, SSPE1 calculations for these pollutants 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 (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 post-project stationary source Potential to Emit (SSPE2) is presented in the following table:

As noted above, the applicant is an existing Major Source for VOC's, and the facility-wide VOC emissions already exceed the offset threshold for VOC's. The Applicant is therefore not becoming a Major Source for VOC's as a result of this project. No other pollutants are emitted by this project; therefore, no SSPE2 calculations for these pollutants are necessary.

5. Major Source Determination

Rule 2201 Major Source Determination:

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

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

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

Rule 2410 Major Source Determination:

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). Therefore the PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

PSD Major Source Determination (tons/year)						
	NO_2	VOC	SO_2	CO	PM	PM_{10}
Estimated Facility PE before Project Increase	0	18.2*	0	0	0	0
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source?	No	No	No	No	No	No

*SSPE Calculator

As shown above, the facility is not an existing PSD major source for any regulated NSR pollutant expected to be emitted at this facility.

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

Since tanks C-5870-5 and '-6 are equipped with pressure relief valves they satisfy Achieved-in-Practice BACT (BACT Guideline 7.3.1) are considered Clean Emissions Units.

Therefore, the BE is equal to the pre-project potential to emit (PE1).

Permit Unit	VOC - Annual BE (lb/Year)
C-5870-5-0	631
C-5870-6-1	3,979

C-5870-12-0

Since this is a new tank, the BE is equal 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 (x-pollutant), 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. Note that any emissions increases of 0.5 lb/day or less round to zero for NSR purposes.

SB 288 Major Modification Thresholds			
Pollutant	**Project PE2 (lb/year)**	**Threshold (lb/year)**	**SB 288 Major Modification Calculation Required?**
NO_x	0		No
SO_x	0		No
PM_{10}	0		No
VOC	881 + 2096 = 2,977	50,000	No

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

8. Federal Major Modification

District Rule 2201, 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.

C-5870-6

Step 1

For existing emissions units, the increase in emissions is calculated as follows.

Emission Increase = PAE – BAE - UBC

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

Applicant has stated that tank '-6 is currently and has been (during Baseline Period) operating as a wash tank. Furthermore, there is no expected change in operation of tank '-6 i.e. PAE = BAE. The true vapor pressure (TVP) and throughput during the Baseline Period were 1.2 psia and 5 bpod.

For calculation of UBC it is assumed that tank '-6 could have operated as a stock tank (variable level) at 90 bbl/day (permit limit) during the baseline period (tvp = 1.7 psia).

The results of the calculations are listed below and included in **Attachment II**.

PAE = BAE = 171 lb/yr VOCs
UBC = 1,188 lb/yr VOCs

EI = 171 – 171 – 1,188
= -1,188 lb/yr VOCs

C-5870-15

Step 1

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

The project includes a new stock tank with an emissions increase of 2,096 lb/yr.

EI = 2,096 lb/yr

Federal Modification				
Permit Unit	PAE	BAE	UBC	EI = PAE – BAE-UBC
C-5870-6	171	171	1,188	-1,188
C-5870-15				2,096
Project VOCs				908

Therefore the project is a Federal Major Modification.

Federal Offset Quantities:

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

VOC **Federal Offset Ratio** **1.5**

Permit No.	Actual Emissions (lb/year)	Potential Emissions (lb/year)	Emissions Change (lb/yr)
C-5870-6 and '-15			908
		Net Emission Change (lb/year):	0
		Federal Offset Quantity: (NEC * 1.5)	1,362

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

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

I. Project Emissions Increase - New Major Source Determination

The post-project potentials to emit from all new and modified units are compared to the PSD major source thresholds to determine if the project constitutes a new major source subject to PSD requirements.

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). The PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

PSD Major Source Determination: Potential to Emit (tons/year)						
	NO_2	VOC	SO_2	CO	PM	PM_{10}
Total PE from New and Modified Units	0	1.5	0	0	0	0
PSD Major Source threshold	250	250	250	250	250	250
New PSD Major Source?	N	N	N	N	N	N

As shown in the table above, the potential to emit for the project, by itself, does not exceed any PSD major source threshold. Therefore Rule 2410 is not applicable and no further analysis is required.

10. Quarterly Net Emissions Change (QNEC)

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

QNEC = PE2 - BE, where:

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

C-5870-6

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

$PE2_{quarterly}$ = $PE2_{annual}$ ÷ 4 quarters/year
= 881 lb/year ÷ 4 qtr/year
= 220.25 lb PM_{10}/qtr

$BE_{quarterly}$ = BE_{annual} ÷ 4 quarters/year
= 3,979 lb/year ÷ 4 qtr/year
= 994.75 lb VOC/qtr

QNEC = -774.5 lb VOC/qtr

C-5870-15

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

$PE2_{quarterly}$ = $PE2_{annual}$ ÷ 4 quarters/year
= 2,096 lb/year ÷ 4 qtr/year
= 524 lb VOC/qtr

$BE_{quarterly}$ = BE_{annual} ÷ 4 quarters/year
= 0 lb/year ÷ 4 qtr/year
= 0 lb VOC/qtr

QNEC = 524 lb VOC/qtr

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 for the following:

a) Any new emissions unit with a potential to emit exceeding two pounds per day*,
b) The relocation from one stationary source to another of an existing emissions unit with a potential to emit exceeding two pounds per day, and/or

c) Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day*.
d) When a Major Modification is triggered for a modification project at a facility that is a Major Source.

*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.

C-5870-15

The applicant is proposing to install a new emissions unit with a PE of 5.7 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.

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 for relocation purposes.

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

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 x (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.

C-5870-6

AIPE (lb/day) = PE2 (lb/day) – [PE1 (lb/day) x (EF2 / EF1)]
= 2.4 (lb/day) – [10.91 (lb/day) x (1)]
= < 0

BACT is not triggered for modification purposes.

d. SB 288/Federal Major Modification

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

2. BACT Guidance

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

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 IV**)

3. Top-Down BACT Analysis

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

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

VOC: 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 in Table 4-1 or 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 Calculations Required?**
VOC	>20,000	20,000	Yes

2. Quantity of Offsets Required

As shown in the table above, the SSPE2 is greater than or equal to the offset threshold levels for any criteria pollutant. Therefore, offsets calculations will be required.

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

Offsets				
Permit Unit	PE2 (lb/year)	BE (lb/year)	ICCE (lb/year)	Offsets (lb/year)
C-5870-5	0	631		-631
C-5870-6	881	3,789	--	-2908
C-5870-12	2,096	0	--	2096
Project VOC	2,977	4420	--	-1443

Offsets will not be required.

C. Public Notification

1. Applicability

Public noticing is required for:
a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
c. Any project which results in the offset thresholds being surpassed, 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 SB 288 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 and C.8, this project does constitute a Federal Major Modification; therefore, public noticing for SB 288 or Federal Major Modification purposes is required.

b. PE > 100 lb/day

The PE2 for this new unit (tank) is compared to the daily PE Public Notice thresholds in the following table:

PE > 100 lb/day Public Notice Thresholds			
Pollutant	PE2 (lb/day)	Public Notice Threshold	Public Notice Triggered?
VOC	5.7	100 lb/day	No

Therefore, public noticing for PE > 100 purposes is not required

c) Offset Threshold

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

Offset Threshold				
Pollutant	**SSPE1 (lb/yr)**	**SSPE2 (lb/yr)**	**Offset Levels (lb/yr)**	**Public Notice Required?**
VOC	>20,000	>20,000	20,000	No

Since the SSPE2 does not surpass the offset threshold levels, public noticing is not triggered for this project.

d) SSIPE > 20,000 lb/yr

The SSIPE (NEC) is calculated and shown as follows:

SSIPE= SSPE2 – SSPE1

Stationary Source Increase in Permitted Emissions (SSIPE)			
Pollutant	**SSPE2 (lb/yr)**	**SSPE1 (lb/yr)**	**SSIPE (lb/yr)**
VOC	>20,000	>20,000	-1,443

As shown in the above table, the SSIPE for this project does not exceed the 20,000 lb/yr public notice threshold.

Therefore, public noticing is not required for SSIPE purposes.

2. Public Notice Action

As discussed above, public noticing pursuant to District Rule 2201 is required for this project as the project is a Federal Major Modification. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be electronically published on the District's website prior to the issuance of the ATC for this equipment.

D. Daily Emissions Limits (DEL)

Daily Emission Limits, DELs, are required by Rule 2201 Section 5.7.2.

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.

C-5870-6

This tank shall only store organic liquid with a true vapor pressure (TVP) of less than 5.0 psia under all storage conditions. [District Rule 2201] N

Tank shall be operated at constant level. [District Rule 2201] N

VOC emission rate from the tank shall not exceed 2.4 lb/day. [District Rule 2201] N

C-5870-12

This tank shall only store organic liquid with a true vapor pressure (TVP) of less than 5.0 psia under all storage conditions. [District Rule 2201] N

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

VOC emission rate from the tank shall not exceed 5.7 lb/day. [District Rule 2201] N

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 every 24 months during summer (July – September) or every time when the source

of liquid stored is changed for all tanks in this project shall be conducted once every 24 month period.

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.

G. Compliance Certification

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

H. Alternate Siting Analysis

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

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

Rule 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 4102 - Public Nuisance

Rule 4102 states that no air contaminant shall be released into the atmosphere which causes a public nuisance. Compliance is expected

CH&SC 41700 - California Health and Safety Code

The District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, 3/2/01) requires that a Risk Management Review is performed for any increase in hourly or annual emissions of Hazardous Air Pollutants (HAPs). HAPs are limited to substances included on the list in CH&SC 44321 and that have an OEHHA approved health risk value.

Pursuant to the District Risk Management Policy for New and Modified Sources, a screening Health Risk Assessment (HRA) is not required since the prioritization score is equal to or less than 1.0.

The project is approved for permitting without consideration of Toxic Best Available Control Technology (T-BACT).

In accordance with this policy, no further analysis is required, and compliance with District Rule 4102 requirements is expected.

See **Attachment VII**: Health Risk Assessment Summary

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, Kelpetro Operations, Inc proposes to install one 10,500-gallon one new wash tank and modified one existing 21,000-gallon storage tank. Both tanks are subject to the requirements of this rule.

Section 4.3 Small Producer Exemption:

According to Section 4.3, Except for complying with Sections 6.3.4 (recordkeeping for a small producer) and 7.2 (compliance after loss of

exemption), 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. The applicant is a small producer; however, the tanks have a maximum throughput greater than 50 barrels of crude oil per day; therefore, these tanks are not exempt from this rule. The following condition will be placed on the proposed ATCs:

- *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]*

Section 5.1.2 Small Producer VOC Control System Requirements:

Section 5.1.2 states that a small producer shall not place, hold, or store crude oil in any tank unless such tank is equipped with a VOC control system identified in Table 2. For storage of any organic liquid except crude oil, a small producer shall comply with the requirements of Section 5.1.1. The specifications for the VOC control system are described in Sections 5.2, 5.3, 5.4, 5.5, and 5.6.

Table 2 – Small Producer VOC Control System Requirements for Crude Oil Storage Tanks

Tank Design Capacity (gallons)	TVP and Crude Oil Throughput		
	0.5 psia to <11 psia and a tank throughput of >50 to <150 barrels of crude oil per day	0.5 psia to <11 psia and a tank throughput ≥150 barrels of crude oil per day	≥11 psia and regardless of crude oil tank throughput
1,100 to 39,600	Pressure-vacuum relief valve, or internal floating roof, or external floating roof, or vapor recovery system	Pressure-vacuum relief valve, or internal floating roof, or external floating roof, or vapor recovery system	Pressure vessel or vapor recovery system
>39,600	Pressure-vacuum relief valve, or internal floating roof, or external floating roof, or vapor recovery system	Internal floating roof, or external floating roof, or vapor recovery system	Pressure vessel or vapor recovery system

C-5870-15

The facility is proposing a TVP of 5.0 psia and a throughput of 50 barrels of crude oil per day. Section 5.2 outlines the requirements for pressure-vacuum relief valves and the following conditions will be placed on the proposed ATCs to ensure compliance:

- *{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 gas-tight condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623]*

Sections 5.3, 5.4 and 5.5 outline the requirements for floating roof tanks and decks. The tanks associated with this project are fixed roof; therefore, the requirements of these sections do not apply to these tanks.

Section 5.6 outlines the specifications for vapor recovery systems. The tanks associated with this project do not have vapor recovery systems; therefore, the requirements of this section do not apply to these tanks.

Section 5.7 outlines the procedures for the voluntary maintenance and inspection program. The facility has made no indication to participate in the program; therefore, the requirements of this section do not apply to these tanks.

Section 6.1 outlines the administrative requirements for floating roof tanks. As mentioned previously, the tanks associated with this project are fixed roof; therefore, the requirements of this section do not apply to these tanks.

Section 6.2 outlines TVP and API gravity testing of stored organic liquid in uncontrolled fixed roof tanks. Sections 6.2.1 and 6.2.2 shall not apply to tanks that store organic liquids listed in Appendix A exclusively, provided the storage temperature indicated in Appendix A is not exceeded at any time. An operator shall comply with Section 6.3.6 if the information in Appendix A is used to demonstrate the TVP and/or API gravity of the stored liquid. The contents of these tanks are not listed in Appendix A. Therefore, the requirements of this section apply to this project.

Section 6.2.1 states, that an operator shall conduct an initial TVP testing of each uncontrolled fixed roof tank. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 are met. The TVP testing shall be completed by the compliance deadline specified in

Section 7.1. The operator shall submit the records of TVP and/or API gravity testing to the APCO as specified in Section 6.3.6. Section 6.2.1.2 The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. If the tank stores crude oil or petroleum distillates, the operator shall also conduct an API gravity testing. The tanks have pressure-vacuum relief valves and are considered controlled tanks according to District internal policy. As a result, the requirements of these sections do apply to the project.

Section 6.3 states; an operator shall retain accurate records required by this rule for a period of five years. Records shall be made available to the APCO upon request, except for certain records that need to be submitted as specified in the respective sections below. The following conditions will insure compliance:

- *Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank. The monthly crude oil production records required by the California Division of Oil, Gas, and Geothermal Resources may be used to comply with the above requirement. [District Rules 2201 and 4623]*

- *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 1070 and 4623]*

Section 6.4 outlines the approved test methods for TVP and API testing. The tanks are not required to perform TVP or API testing; therefore, the requirements of this section do not apply to this project.

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)

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

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

Greenhouse Gas (GHG) Significance Determination

District is a Lead Agency and Project not Covered Under Cap-and-Trade

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 or former use. Furthermore, the District determined that the activity will not have a significant effect on the environment. Therefore, the District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15301 (Existing Facilities), and finds that the project is exempt per the common sense exemption that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

Indemnification Agreement/Letter of Credit Determination

According to District Policy APR 2010 (CEQA Implementation Policy), when the District is the Lead or Responsible Agency for CEQA purposes, an indemnification agreement and/or a letter of credit may be required. The decision to require an indemnity agreement and/or a letter of credit is based on a case-by-case analysis of a particular project's potential for litigation risk, which in turn may be based on a project's potential to generate public concern, its

potential for significant impacts, and the project proponent's ability to pay for the costs of litigation without a letter of credit, among other factors.

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

IX. Recommendations

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue Authority to Construct C-5870-6-3 and '-15-0 subject to the permit conditions on the attached draft Authority to Construct in **Attachment VIII**.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-1634-1	3020-05E	390,446 gallons	$246.00
S-1634-2	3020-05E	213,500 gallons	$246.00
S-1634-4	3020-01F	446 hp	$607.00

Attachments

I: Current PTOs
II: Emission Calculations
III: Emissions Profiles
IV: BACT Guideline
V: BACT Analysis
VI: Compliance Certification
VII: HRA
VIII: Draft ATCs

Attachment I
Current PTOs

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-5870-5-0 **EXPIRATION DATE:** 09/30/2022

EQUIPMENT DESCRIPTION:
250 BBL FIXED ROOF WASH TANK - 10' D X 16' H

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1]
3. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1]
4. 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]
5. This tank shall only store organic liquid with a true vapor pressure (TVP) of less than 5.0 psia under all storage conditions. [District Rule 2201]
6. Tank throughput shall not exceed 150 bbl per day. [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 gas-tight condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623]
8. This tank shall be in a gas-tight condition. A gas-tight 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]
9. 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 Rules 2201 and 4623]
10. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-5870-6-1 **EXPIRATION DATE:** 09/30/2022

SECTION: 26 **TOWNSHIP:** 17S **RANGE:** 19E

EQUIPMENT DESCRIPTION:
500 BBL FIXED ROOF STOCK TANK - 15' D X 16' H

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1]
3. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1]
4. 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]
5. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201]
6. 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 gas-tight condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623]
7. This tank shall be in a gas-tight condition. A gas-tight 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]
8. Crude oil throughput shall not exceed 90 barrels per day based on a monthly average. [District Rule 4623]
9. VOC emission rate from the tank shall not exceed 14.2 lb/day. [District Rule 2201]
10. 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 4623]
11. 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 Rule 4623, 5.7 (Table 3)]
12. 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 Rules 2201 and 4623]
13. 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 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. 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]
15. 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 4623]
16. 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]
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 4623]
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623]
19. 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 4623]
20. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

Attachment II
Emission Calculations

output

1.5 lb2 on DTO

Pre-1-5-0
1043724

TANK ID	TANK USE	SJVUAPCD PERMIT #	TANK TYPE H OR V	SHELL DIMENSIONS D (FT)	SHELL DIMENSIONS Hs (FT)	CAPACITY (BBL)	ROOF TYPE (C/D)	VENT PSIG VAC.	VENT PSIG PRESS.
0	WASH	C-5870-5-0	VERTICAL	10.0	16.0	223.8	CONE	-0.03	0.03

TANK ROOF COND.	TANK ROOF COLOR	PAINT FACTOR	LIQUID DATA TYPE	LIQUID DATA Ht=H(lx)	LIQUID DATA Kp	LIQUID DATA RVP	CONSTANT LEVEL?	VAPOR MOL. WT.	VOC CNTRL %EFF (w/w)
GOOD	RED	0.89	CRUDE	14.0	0.75	5.00	YES	50.00	0.0

UNCONTROLLED EMISSIONS

CALENDAR QUARTER	CALENDAR MONTH	SURFACE T(la) F	CALC TVP @ T(la)	RATE (BBL/MON)	TURNOVER PER MON.	FAC-(Kn)	VOC (LBM/MONTH) Ls	VOC (LBM/MONTH) Lw	VOC (LBM/MONTH) TOTAL (Lt)	TOTAL (LBM/QTR)
FIRST	JANUARY	62.69	3.03	4650	0.33	1.000	12.75	7.35	20.10	
	FEBRUARY	67.53	3.33	4200	0.33	1.000	18.62	8.07	26.69	
	MARCH	74.73	3.81	4650	0.33	1.000	28.17	9.24	37.41	84.20
SECOND	APRIL	78.81	4.11	4500	0.33	1.000	45.49	9.96	55.45	
	MAY	85.01	4.60	4650	0.33	1.000	64.41	11.14	75.55	
	JUNE	89.59	4.99	4500	0.33	1.000	74.99	12.09	87.08	218.08
THIRD	JULY	91.81	5.19	4650	0.33	1.000	82.49	12.57	95.06	
	AUGUST	89.21	4.95	4650	0.33	1.000	70.67	12.00	82.67	
	SEPTEMBER	83.71	4.49	4500	0.33	1.000	50.77	10.89	61.65	239.38
FOURTH	OCTOBER	76.18	3.92	4650	0.33	1.000	34.61	9.49	44.10	
	NOVEMBER	67.44	3.32	4500	0.33	1.000	18.13	8.05	26.18	
	DECEMBER	62.00	2.99	4650	0.33	1.000	11.65	7.25	18.90	89.18

CONTROLLED EMISSIONS (BASED ON MONTHLY CALCULATIONS)

CALENDAR QUARTER	CALENDAR MONTH	SURFACE T(la) F	CALC TVP @ T(la)	RATE (BBL/QTR)	TURNOVER PER QTR.	FAC-(Kn)	VOC (LBM/QTR) Ls	VOC (LBM/QTR) Lw	VOC (LBM/QTR) TOTAL (Lt)
FIRST	JAN-MAR	68.32	3.39	13500	1	1.000	60	25	84
SECOND	APR-JUN	84.47	4.57	13650	1	1.000	185	33	218
THIRD	JUL-SEP	88.24	4.88	13800	1	1.000	204	35	239
FOURTH	OCT-DEC	68.54	3.41	13800	1	1.000	64	25	89
QUARTERLY AVERAGE		77.39	4.06	13688			128	30	158
DAILY AVERAGE (LB/DAY, BASED ON MONTHLY CALCULATIONS)							1.4	0.3	1.7
ANNUAL EMISSIONS (LB/YEAR, BASED ON MONTHLY CALCULATIONS)							513	118	631

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	0.66	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 NAPTHA
NAPHTHA (RVP 2-8 PSIA)	4	NAPTHA

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)	1
USING THE CODES ABOVE, WHAT AREA METEOROLOGICAL	----
DATA DO YOU WANT TO USE? (0, 1, 2, ...)	1
REID VAPOR PRESSURE (psia)	5.00
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)	16.00
VENT VACUUM (ENTER "-" FOLLOWED BY A VALUE IN PSIG)	-0.03
VENT PRESSURE (POSITIVE psig)	0.03
TANK ID	C-5870-6
TANK USE	Stock
SJVUAPCD PERMIT#	C-5870-6
CONE OR DOME ROOF (C/D)	C
MAXIMUM TOTAL DAILY THROUGHPUT (BBL/DAY)	90.00
MIN LIQUID HEIGHT (USE 0.0 FT FOR DEFAULT)	2.00
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, Sr (DEFAULT=0.0625) (ft/ft)	0.0625
----	----
----	1.00
DO YOU WANT TO ENTER A MAX LIQUID HEIGHT? (Y/N)	Y
ENTER MAXIMUM LIQUID HEIGHT (ft)	14.00
----	14.00
DO YOU WANT TO ENTER AN AVERAGE LIQUID HEIGHT? (Y/N)	Y
----	----
ENTER AVERAGE LIQUID HEIGHT (ft)	10.0
IS TANK CONSTANT LEVEL? (Y/N)	N
----	0.33
ARE THE CONTENTS OF THE TANK HEATED? (Y/N)	N
----	160

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-5870-6	Stock	C-5870-6	VERTICAL	15.0	16.0	503.6	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	14.0	0.75	5.00	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	60.88	2.93	2790	7.39	0.512	46.73	156.71	203.44	
	FEBRUARY	65.13	3.18	2520	6.67	0.512	65.22	153.73	218.95	
	MARCH	71.56	3.59	2790	7.39	0.512	89.35	192.33	281.69	704.08
SECOND	APRIL	74.79	3.82	2700	7.15	0.512	142.75	197.72	340.47	
	MAY	80.34	4.23	2790	7.39	0.512	192.31	226.25	418.56	
	JUNE	84.63	4.57	2700	7.15	0.512	217.21	236.57	453.78	1212.81
THIRD	JULY	86.88	4.75	2790	7.39	0.512	236.88	254.44	491.32	
	AUGUST	84.72	4.57	2790	7.39	0.512	208.79	244.83	453.62	
	SEPTEMBER	79.91	4.19	2700	7.15	0.512	157.91	217.25	375.16	1320.10
FOURTH	OCTOBER	73.21	3.71	2790	7.39	0.512	115.22	198.37	313.59	
	NOVEMBER	65.32	3.19	2700	7.15	0.512	64.86	165.31	230.16	
	DECEMBER	60.32	2.90	2790	7.39	0.512	43.25	154.99	198.24	741.99

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	65.86	3.23	8100	21	0.512	201	503	704
SECOND	APR-JUN	79.92	4.20	8190	22	0.512	552	661	1213
THIRD	JUL-SEP	83.84	4.51	8280	22	0.512	604	717	1320
FOURTH	OCT-DEC	66.28	3.26	8280	22	0.512	223	519	742
QUARTERLY AVERAGE		73.97	3.80	8213			395	600	995
DAILY AVERAGE (LB/DAY, BASED ON MONTHLY CALCULATIONS)							4.3	6.6	10.9
ANNUAL EMISSIONS (LB/YEAR, BASED ON MONTHLY CALCULATIONS)							1580	2398	3979

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 NAPTHA
NAPHTHA (RVP 2-8 PSIA)	4	NAPTHA

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)	1
USING THE CODES ABOVE, WHAT AREA METEOROLOGICAL	----
DATA DO YOU WANT TO USE? (0, 1, 2, ...)	1
REID VAPOR PRESSURE (psia)	5.00
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)	16.00
VENT VACUUM (ENTER "-" FOLLOWED BY A VALUE IN PSIG)	-0.03
VENT PRESSURE (POSITIVE psig)	0.03
TANK ID	C-5870-6
TANK USE	Wash
SJVUAPCD PERMIT#	C-5870-6
CONE OR DOME ROOF (C/D)	C
MAXIMUM TOTAL DAILY THROUGHPUT (BBL/DAY)	90.00
MIN LIQUID HEIGHT (USE 0.0 FT FOR DEFAULT)	14.00
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, Sr (DEFAULT=0.0625) (ft/ft)	0.0625
----	----
----	1.00
DO YOU WANT TO ENTER A MAX LIQUID HEIGHT? (Y/N)	Y
ENTER MAXIMUM LIQUID HEIGHT (ft)	14.00
----	14.00
DO YOU WANT TO ENTER AN AVERAGE LIQUID HEIGHT? (Y/N)	Y
----	----
ENTER AVERAGE LIQUID HEIGHT (ft)	14.0
IS TANK CONSTANT LEVEL? (Y/N)	Y
IF YES, NUMBER OF TURNOVERS PER MONTH (DEF.=0.33)	0.33
ARE THE CONTENTS OF THE TANK HEATED? (Y/N)	N
----	160

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-5870-6	Wash	C-5870-6	VERTICAL	15.0	16.0	503.6	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	14.0	0.75	5.00	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	60.88	2.93	2790	0.33	1.000	23.98	0.00	23.98	
	FEBRUARY	65.13	3.18	2520	0.33	1.000	34.14	0.00	34.14	
	MARCH	71.56	3.59	2790	0.33	1.000	48.20	0.00	48.20	106.32
SECOND	APRIL	74.79	3.82	2700	0.33	1.000	78.17	0.00	78.17	
	MAY	80.34	4.23	2790	0.33	1.000	108.06	0.00	108.06	
	JUNE	84.63	4.57	2700	0.33	1.000	124.48	0.00	124.48	310.71
THIRD	JULY	86.88	4.75	2790	0.33	1.000	137.15	0.00	137.15	
	AUGUST	84.72	4.57	2790	0.33	1.000	119.70	0.00	119.70	
	SEPTEMBER	79.91	4.19	2700	0.33	1.000	88.55	0.00	88.55	345.40
FOURTH	OCTOBER	73.21	3.71	2790	0.33	1.000	62.63	0.00	62.63	
	NOVEMBER	65.32	3.19	2700	0.33	1.000	33.98	0.00	33.98	
	DECEMBER	60.32	2.90	2790	0.33	1.000	22.14	0.00	22.14	118.75

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	65.86	3.23	8100	1	1.000	106	0	106
SECOND	APR-JUN	79.92	4.20	8190	1	1.000	311	0	311
THIRD	JUL-SEP	83.84	4.51	8280	1	1.000	345	0	345
FOURTH	OCT-DEC	66.28	3.26	8280	1	1.000	119	0	119
QUARTERLY AVERAGE		73.97	3.80	8213			220	0	220
DAILY AVERAGE (LB/DAY, BASED ON MONTHLY CALCULATIONS)							2.4	0.0	2.4
ANNUAL EMISSIONS (LB/YEAR, BASED ON MONTHLY CALCULATIONS)							881	0	881

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 NAPTHA
NAPHTHA (RVP 2-8 PSIA)	4	NAPTHA

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)	1
USING THE CODES ABOVE, WHAT AREA METEOROLOGICAL	----
DATA DO YOU WANT TO USE? (0, 1, 2, ...)	1
REID VAPOR PRESSURE (psia)	5.00
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-XX
TANK USE	Stock
SJVUAPCD PERMIT#	C-5870-XX
CONE OR DOME ROOF (C/D)	C
MAXIMUM TOTAL DAILY THROUGHPUT (BBL/DAY)	50.00
MIN LIQUID HEIGHT (USE 0.0 FT FOR DEFAULT)	2.00
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, Sr (DEFAULT=0.0625) (ft/ft)	0.0625
----	----
----	1.00
DO YOU WANT TO ENTER A MAX LIQUID HEIGHT? (Y/N)	Y
ENTER MAXIMUM LIQUID HEIGHT (ft)	6.00
----	6.00
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
----	0.33
ARE THE CONTENTS OF THE TANK HEATED? (Y/N)	N
----	160

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

TANK ROOF COND.	TANK ROOF COLOR	PAINT FACTOR	LIQUID DATA TYPE	LIQUID DATA Ht=H(lx)	LIQUID DATA Kp	LIQUID DATA RVP	CONSTANT LEVEL?	VAPOR MOL. WT.	VOC CNTRL %EFF (w/w)
GOOD	GRAY	0.68	CRUDE	6.0	0.75	5.00	NO	50.00	0.0

UNCONTROLLED EMISSIONS

CALENDAR QUARTER	CALENDAR MONTH	SURFACE T(la) F	CALC TVP @ T(la)	RATE (BBL/MON)	TURNOVER PER MON.	FAC-(Kn)	VOC (LBM/MONTH) Ls	VOC (LBM/MONTH) Lw	VOC (LBM/MONTH) TOTAL (Lt)	TOTAL (LBM/QTR)
FIRST	JANUARY	60.88	2.93	1550	12.31	0.374	31.45	63.58	95.03	
	FEBRUARY	65.13	3.18	1400	11.12	0.374	44.47	62.37	106.85	
	MARCH	71.56	3.59	1550	12.31	0.374	62.16	78.03	140.19	342.07
SECOND	APRIL	74.79	3.82	1500	11.91	0.374	100.29	80.22	180.52	
	MAY	80.34	4.23	1550	12.31	0.374	137.42	91.79	229.21	
	JUNE	84.63	4.57	1500	11.91	0.374	157.21	95.98	253.19	662.92
THIRD	JULY	86.88	4.75	1550	12.31	0.374	172.58	103.23	275.81	
	AUGUST	84.72	4.57	1550	12.31	0.374	151.15	99.34	250.48	
	SEPTEMBER	79.91	4.19	1500	11.91	0.374	112.69	88.15	200.83	727.13
FOURTH	OCTOBER	73.21	3.71	1550	12.31	0.374	80.56	80.48	161.04	
	NOVEMBER	65.32	3.19	1500	11.91	0.374	44.25	67.07	111.32	
	DECEMBER	60.32	2.90	1550	12.31	0.374	29.05	62.88	91.93	364.30

CONTROLLED EMISSIONS (BASED ON MONTHLY CALCULATIONS)

CALENDAR QUARTER	CALENDAR MONTH	SURFACE T(la) F	CALC TVP @ T(la)	RATE (BBL/QTR)	TURNOVER PER QTR.	FAC-(Kn)	VOC (LBM/QTR) Ls	VOC (LBM/QTR) Lw	VOC (LBM/QTR) TOTAL (Lt)
FIRST	JAN-MAR	65.86	3.23	4500	36	0.374	138	204	342
SECOND	APR-JUN	79.92	4.20	4550	36	0.374	395	268	663
THIRD	JUL-SEP	83.84	4.51	4600	37	0.374	436	291	727
FOURTH	OCT-DEC	66.28	3.26	4600	37	0.374	154	210	364
QUARTERLY AVERAGE		73.97	3.80	4563			281	243	524
DAILY AVERAGE (LB/DAY, BASED ON MONTHLY CALCULATIONS)							3.1	2.7	5.7
ANNUAL EMISSIONS (LB/YEAR, BASED ON MONTHLY CALCULATIONS)							1123	973	2096

Tank Emission Calculation Spreadsheet, version 01/23/03

MBC

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 NAPTHA
NAPHTHA (RVP 2-8 PSIA)	4	NAPTHA

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)	1
USING THE CODES ABOVE, WHAT AREA METEOROLOGICAL	----
DATA DO YOU WANT TO USE? (0, 1, 2, ...)	1
REID VAPOR PRESSURE (psia)	1.70
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)	15.00
TANK SHELL HEIGHT, Hs (FEET)	16.00
VENT VACUUM (ENTER "-" FOLLOWED BY A VALUE IN PSIG)	-0.03
VENT PRESSURE (POSITIVE psig)	0.03
TANK ID	C-5870-6
TANK USE	stock
SJVUAPCD PERMIT#	C-5870-6
CONE OR DOME ROOF (C/D)	C
MAXIMUM TOTAL DAILY THROUGHPUT (BBL/DAY)	90.00
MIN LIQUID HEIGHT (USE 0.0 FT FOR DEFAULT)	2.00
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, Sr (DEFAULT=0.0625) (ft/ft)	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)	14.00
DO YOU WANT TO ENTER AN AVERAGE LIQUID HEIGHT? (Y/N)	N
IF NO, THE AVERAGE LIQUID HEIGHT WILL BE CALCULATED	----
-----	8.0
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 D (FT)	SHELL DIMENSIONS Hs (FT)	CAPACITY (BBL)	ROOF TYPE (C/D)	VENT PSIG VAC.	VENT PSIG PRESS.
3	stock	C-5870-6	VERTICAL	15.0	16.0	503.6	CONE	-0.03	0.03

TANK ROOF COND.	TANK ROOF COLOR	PAINT FACTOR	LIQUID DATA TYPE	LIQUID DATA Ht=H(lx)	LIQUID DATA Kp	LIQUID DATA RVP	CONSTANT LEVEL?	VAPOR MOL. WT.	VOC CNTRL %EFF (w/w)
GOOD	GRAY	0.68	CRUDE.	14.0	0.75	1.70	NO	50.00	0.0

UNCONTROLLED EMISSIONS

CALENDAR QUARTER	CALENDAR MONTH	SURFACE T(la) F	CALC TVP @ T(la)	RATE (BBL/MON)	TURNOVER PER MON.	FAC-(Kn)	VOC (LBM/MONTH) Ls	VOC (LBM/MONTH) Lw	VOC (LBM/MONTH) TOTAL (Lt)	TOTAL (LBM/QTR)
FIRST	JANUARY	60.88	0.84	2790	7.39	0.512	14.72	44.71	59.43	
	FEBRUARY	65.13	0.92	2520	6.67	0.512	20.49	44.63	65.12	
	MARCH	71.56	1.06	2790	7.39	0.512	27.57	56.95	84.52	209.07
SECOND	APRIL	74.79	1.13	2700	7.15	0.512	44.06	58.75	102.80	
	MAY	80.34	1.27	2790	7.39	0.512	57.74	67.73	125.47	
	JUNE	84.63	1.38	2700	7.15	0.512	64.54	71.31	135.85	364.13
THIRD	JULY	86.88	1.44	2790	7.39	0.512	69.19	77.00	146.20	
	AUGUST	84.72	1.38	2790	7.39	0.512	61.47	73.81	135.29	
	SEPTEMBER	79.91	1.25	2700	7.15	0.512	47.67	64.99	112.67	394.15
FOURTH	OCTOBER	73.21	1.10	2790	7.39	0.512	35.42	58.83	94.25	
	NOVEMBER	65.32	0.93	2700	7.15	0.512	20.54	48.02	68.56	
	DECEMBER	60.32	0.82	2790	7.39	0.512	13.59	44.12	57.71	220.52

CONTROLLED EMISSIONS (BASED ON MONTHLY CALCULATIONS)

CALENDAR QUARTER	CALENDAR MONTH	SURFACE T(la) F	CALC TVP @ T(la)	RATE (BBL/QTR)	TURNOVER PER QTR.	FAC-(Kn)	VOC (LBM/QTR) Ls	VOC (LBM/QTR) Lw	VOC (LBM/QTR) TOTAL (Lt)
FIRST	JAN-MAR	65.86	0.94	8100	21	0.512	63	146	209
SECOND	APR-JUN	79.92	1.26	8190	22	0.512	166	198	364
THIRD	JUL-SEP	83.84	1.36	8280	22	0.512	178	216	394
FOURTH	OCT-DEC	66.28	0.95	8280	22	0.512	70	151	221
QUARTERLY AVERAGE		73.97	1.13	8213			119	178	297
DAILY AVERAGE (LB/DAY, BASED ON MONTHLY CALCULATIONS)							1.3	1.9	3.3
ANNUAL EMISSIONS (LB/YEAR, BASED ON MONTHLY CALCULATIONS)							477	711	1188

Tank Emission Calculation Spreadsheet, version 01/23/03

PAE = BAE

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 NAPTHA
NAPHTHA (RVP 2-8 PSIA)	4	NAPTHA

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)	1
USING THE CODES ABOVE, WHAT AREA METEOROLOGICAL	----
DATA DO YOU WANT TO USE? (0, 1, 2, ..)	1
REID VAPOR PRESSURE (psia)	1.70
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)	15.00
TANK SHELL HEIGHT, Hs (FEET)	16.00
VENT VACUUM (ENTER "-" FOLLOWED BY A VALUE IN PSIG)	-0.03
VENT PRESSURE (POSITIVE psig)	0.03
TANK ID	C-5870-6
TANK USE	wash
SJVUAPCD PERMIT#	C5870-6
CONE OR DOME ROOF (C/D)	C
MAXIMUM TOTAL DAILY THROUGHPUT (BBL/DAY)	5.00
MIN LIQUID HEIGHT (USE 0.0 FT FOR DEFAULT)	2.00
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, Sr (DEFAULT=0.0625) (ft/ft)	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)	14.00
DO YOU WANT TO ENTER AN AVERAGE LIQUID HEIGHT? (Y/N)	N
IF NO, THE AVERAGE LIQUID HEIGHT WILL BE CALCULATED	----
-----	8.0
IS TANK CONSTANT LEVEL? (Y/N)	Y
IF YES, NUMBER OF TURNOVERS 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 D (FT)	SHELL DIMENSIONS Hs (FT)	CAPACITY (BBL)	ROOF TYPE (C/D)	VENT PSIG VAC.	VENT PSIG PRESS.
3	wash	C5870-6	VERTICAL	15.0	16.0	503.6	CONE	-0.03	0.03

TANK ROOF COND.	TANK ROOF COLOR	PAINT FACTOR	LIQUID DATA TYPE	LIQUID DATA Ht=H(lx)	LIQUID DATA Kp	LIQUID DATA RVP	CONSTANT LEVEL?	VAPOR MOL. WT.	VOC CNTRL %EFF (w/w)
GOOD	GRAY	0.68	CRUDE	14.0	0.75	1.70	YES	50.00	0.0

UNCONTROLLED EMISSIONS

CALENDAR QUARTER	CALENDAR MONTH	SURFACE T(la) F	CALC TVP @ T(la)	RATE (BBL/MON)	TURNOVER PER MON.	FAC-(Kn)	VOC (LBM/MONTH) Ls	VOC (LBM/MONTH) Lw	VOC (LBM/MONTH) TOTAL (Lt)	TOTAL (LBM/QTR)
FIRST	JANUARY	60.88	0.84	155	0.00	1.000	4.92	0.00	4.92	
	FEBRUARY	65.13	0.92	140	0.00	1.000	6.98	0.00	6.98	
	MARCH	71.56	1.06	155	0.00	1.000	9.64	0.00	9.64	21.54
SECOND	APRIL	74.79	1.13	150	0.00	1.000	15.50	0.00	15.50	
	MAY	80.34	1.27	155	0.00	1.000	20.96	0.00	20.96	
	JUNE	84.63	1.38	150	0.00	1.000	23.71	0.00	23.71	60.17
THIRD	JULY	86.88	1.44	155	0.00	1.000	25.86	0.00	25.86	
	AUGUST	84.72	1.38	155	0.00	1.000	22.75	0.00	22.75	
	SEPTEMBER	79.91	1.25	150	0.00	1.000	17.15	0.00	17.15	65.75
FOURTH	OCTOBER	73.21	1.10	155	0.00	1.000	12.47	0.00	12.47	
	NOVEMBER	65.32	0.93	150	0.00	1.000	6.94	0.00	6.94	
	DECEMBER	60.32	0.82	155	0.00	1.000	4.53	0.00	4.53	23.95

CONTROLLED EMISSIONS (BASED ON MONTHLY CALCULATIONS)

CALENDAR QUARTER	CALENDAR MONTH	SURFACE T(la) F	CALC TVP @ T(la)	RATE (BBL/QTR)	TURNOVER PER QTR.	FAC-(Kn)	VOC (LBM/QTR) Ls	VOC (LBM/QTR) Lw	VOC (LBM/QTR) TOTAL (Lt)
FIRST	JAN-MAR	65.86	0.94	450	0	1.000	22	0	22
SECOND	APR-JUN	79.92	1.26	455	0	1.000	60	0	60
THIRD	JUL-SEP	83.84	1.36	460	0	1.000	66	0	66
FOURTH	OCT-DEC	66.28	0.95	460	0	1.000	24	0	24
QUARTERLY AVERAGE		73.97	1.13	456			43	0	43
DAILY AVERAGE (LB/DAY, BASED ON MONTHLY CALCULATIONS)							0.5	0.0	0.5
ANNUAL EMISSIONS (LB/YEAR, BASED ON MONTHLY CALCULATIONS)							171	0	171

Tank Emission Calculation Spreadsheet, version 01/23/03

Attachment III
Emissions Profiles

Application Emissions

Permit #: C-5870-6-3	**Last Updated**
Facility: KELPETRO OPERATING INC.	12/16/2019 EDGEHILR

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	881.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	2.4
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	-774.0
Q2:	0.0	0.0	0.0	0.0	-774.0
Q3:	0.0	0.0	0.0	0.0	-775.0
Q4:	0.0	0.0	0.0	0.0	-775.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Application Emissions

Permit #: C-5870-15-0	Last Updated
Facility: KELPETRO OPERATING INC.	12/16/2019 EDGEHILR

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	2096.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	5.7
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	524.0
Q2:	0.0	0.0	0.0	0.0	524.0
Q3:		0.0	0.0	0.0	524.0
Q4:	0.0	0.0	0.0	0.0	524.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Attachment IV
BACT Guideline

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 7.3.1*

Last Update: 10/01/2002

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

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
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 V
BACT Analysis

I. Introduction

In accordance with District Rule 2201 and District BACT policy APR-1305, a top-down best available control technology (BACT) analysis has been performed for the modified chemical storage tanks.

The project proposal meets the requirements for VOC emissions identified in the current District BACT. BACT Guideline 4.11.4 applies to Organic Liquid Storage Tanks - Non-petroleum and non-petrochemical facilities, = or < 19,000 gallons capacity. BACT is not triggered for any other air contaminants. The proposed equipment meets the control technology requirements identified by the referenced BACT guidance.

II. Top-down BACT Analysis

(a) BACT Guidance - Organic Liquid Storage Tanks - Non-petroleum and non-petrochemical facilities, = or < 19,000 gallons capacity.

Pursuant to the District's BACT policy APR-1305, BACT determinations shall be based on the control technologies and methods for the same or similar stationary source categories listed in the District's BACT Clearinghouse. BACT Guideline 4.11.4, applies to Organic Liquid Storage Tanks - Non-petroleum and non-petrochemical facilities, = or < 19,000 gallons capacity.

This guideline shall be the basis for a "top-down" BACT analysis per District Policy. The following BACT performance levels for VOC are identified by Guideline 4.11.4:

District BACT Guideline 4.11.4

Pollutant	**Achieved in Practice BACT**	**Technologically Feasible BACT**	**Alternate Basic Equipment**
VOC	Pressure/vacuum valve set Within 10% of the maximum Allowable tank working pressure.	Vapor control system with a minimum control efficiency of 95%.	None.

(b) BACT Analysis for VOC:

VOC emissions are generated from standing and working losses resulting from the handling and storage of organic liquids.

Step 1-Identify All Control Technologies
Alternate Basic Equipment: None Identified.
Technologically Feasible: Vapor control system with min 95% control efficiency
Achieved in Practice: PV-vent set to within 10% of maximum allowable pressure.

Step 2- Eliminate Technologically Infeasible Options
All of the above control options identified above are technologically feasible for the proposed equipment and are not eliminated.

Step 3- Rank Remaining Control Technologies by Control Effectiveness
VOC Control Technologies

Control Technology with Ranking	**Control Efficiency or Emission Factor**	**Achieved in Practice (Y/N)**
1. Vapor control system with min 95% control efficiency	95%	N
2. PV-vent set to within 10% of maximum allowable pressure	10%	Y

Step 4 - Cost Effectiveness Analysis

Costs from applicant email 12/16/19.

Kelpetro Operating, Inc.
Cost Effective Analysis
Fontes Courtney Tank Battery
250 bbl Tank - TVP 5/50 BOPD

Total Emissions	2,096	lbs/yr
% Reduction	99%	
Reduction	2,075	lbs/yr
Reduction	**1.04**	**tpy**
Total Capital Cost		
VRU - Compressor	$46,952	
Piping and Installation	$40,000	
Scrubber/Compressor	$23,763	
Flare	$0	
Flare Installation	$0	
Annualized Capital Cost	$18,013	
Annual Mainenance Cost	$12,000	$1,000/month Contract
Annual Seal Replacement	$0	
Total Annualized Cost	**$30,013**	
Cost per Ton	**$28,928**	
VOC Cost/Ton Limit	$17,500	
Exceeds limit, not cost effective		

$A = P * [i(i + 1)^n] / (i + 1)^n - 1]$

where: A = annual cost P = Present Value
i = Interest rate (10%) n = Equipment (10 years)

Interest Rate % (i) 10 %
Equipment Life (n) 10 Years
Present Value of Control Equipment (TCI)
= 46,952 + 40,000 + 23,763
= $110,715

Annualized capital costs, A = 110,715 x 0.1627 = $18,013/yr
Total annualized cost = $12,000 + $18,013
= $30,013/yr

Cost Effectiveness = $ 30,013/yr /1.04 tons/yr
= $28,859/ton > $17,500/ton – cost ineffective

Step 5 – Select BACT

The organic liquid storage tanks will be served by a PV-vent set to within 10% of maximum allowable pressure. Therefore, Rule 2201 requirements for BACT are satisfied.

Attachment V
BACT Analysis

I. Introduction

In accordance with District Rule 2201 and District BACT policy APR-1305, a top-down best available control technology (BACT) analysis has been performed for the modified chemical storage tanks.

The project proposal meets the requirements for VOC emissions identified in the current District BACT. BACT Guideline 4.11.4 applies to Organic Liquid Storage Tanks - Non-petroleum and non-petrochemical facilities, = or < 19,000 gallons capacity. BACT is not triggered for any other air contaminants. The proposed equipment meets the control technology requirements identified by the referenced BACT guidance.

II. Top-down BACT Analysis

(a) BACT Guidance - Organic Liquid Storage Tanks - Non-petroleum and non-petrochemical facilities, = or < 19,000 gallons capacity.

Pursuant to the District's BACT policy APR-1305, BACT determinations shall be based on the control technologies and methods for the same or similar stationary source categories listed in the District's BACT Clearinghouse. BACT Guideline 4.11.4, applies to Organic Liquid Storage Tanks - Non-petroleum and non-petrochemical facilities, = or < 19,000 gallons capacity.

This guideline shall be the basis for a "top-down" BACT analysis per District Policy. The following BACT performance levels for VOC are identified by Guideline 4.11.4:

District BACT Guideline 4.11.4

Pollutant	**Achieved in Practice BACT**	**Technologically Feasible BACT**	**Alternate Basic Equipment**
VOC	Pressure/vacuum valve set Within 10% of the maximum Allowable tank working pressure.	Vapor control system with a minimum control efficiency of 95%.	None.

(b) BACT Analysis for VOC:

VOC emissions are generated from standing and working losses resulting from the handling and storage of organic liquids.

Step 1-Identify All Control Technologies
Alternate Basic Equipment: None Identified.
Technologically Feasible: Vapor control system with min 95% control efficiency
Achieved in Practice: PV-vent set to within 10% of maximum allowable pressure.

Step 2- Eliminate Technologically Infeasible Options
All of the above control options identified above are technologically feasible for the proposed equipment and are not eliminated.

Step 3- Rank Remaining Control Technologies by Control Effectiveness
VOC Control Technologies

Control Technology with Ranking	Control Efficiency or Emission Factor	Achieved in Practice (Y/N)
1. Vapor control system with min 95% control efficiency	95%	N
2. PV-vent set to within 10% of maximum allowable pressure	10%	Y

Step 4 - Cost Effectiveness Analysis

Costs from applicant email 12/16/19.

Kelpetro Operating, Inc.
Cost Effective Analysis
Fontes Courtney Tank Battery
250 bbl Tank - TVP 5/50 BOPD

Total Emissions	2,096	lbs/yr
% Reduction	99%	
Reduction	2,075	lbs/yr
Reduction	**1.04**	**tpy**
Total Capital Cost		
VRU - Compressor	$46,952	
Piping and Installation	$40,000	
Scrubber/Compressor	$23,763	
Flare	$0	
Flare Installation	$0	
Annualized Capital Cost	$18,013	
Annual Mainenance Cost	$12,000	$1,000/month Contract
Annual Seal Replacement	$0	
Total Annualized Cost	**$30,013**	
Cost per Ton	**$28,928**	
VOC Cost/Ton Limit	$17,500	
Exceeds limit, not cost effective		

$A = P * [i(i + 1)^n] / (i + 1)^n - 1]$

where: A = annual cost P = Present Value
i = Interest rate (10%) n = Equipment (10 years)

Interest Rate % (i) 10 %
Equipment Life (n) 10 Years
Present Value of Control Equipment (TCI)
= 46,952 + 40,000 + 23,763
= $110,715

Annualized capital costs, A = 110,715 x 0.1627 = $18,013/yr
Total annualized cost = $12,000 + $18,013
= $30,013/yr

Cost Effectiveness = $ 30,013/yr /1.04 tons/yr
= $28,859/ton > $17,500/ton – cost ineffective

Step 5 – Select BACT

The organic liquid storage tanks will be served by a PV-vent set to within 10% of maximum allowable pressure. Therefore, Rule 2201 requirements for BACT are satisfied.

Attachment VI
Compliance Certification

December 17, 2019

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

Subject: 250 bbl Tank - Compliance Certification – Fontes Courtney

Dear Mr. Scandura:

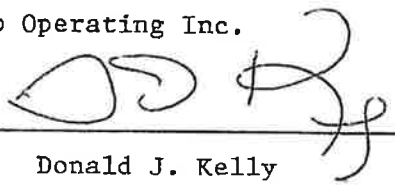
I hereby certify that all major Stationary Sources owned or operated by such person (or by any entity controlling, controlled by, or under common control with such person) in California, which are subject to emission limitations, are in compliance or on a schedule for compliance with all applicable emission 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 existing facilities. The applicant proposes to operate a crude oil tank at the site.

Since the project will replace an existing permitted tank 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.

Kelpetro Operating Inc.

By: 

Signature Donald J. Kelly

Title President

Attachment VII
HRA

San Joaquin Valley Air Pollution Control District
Risk Management Review and Ambient Air Quality Analysis

To:	Richard Edgehill – Permit Services
From:	Will Worthley – Technical Services
Date:	December 30, 2019
Facility Name:	KELPETRO OPERATING INC.
Location:	36.442646°, -119.882560°
Application #(s):	C-5870-6-3, -15-0
Project #:	C-1193168

1. Summary

1.1 RMR

Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required	Special Permit Requirements
6-3	NA[1]	NA[1]	NA[1]	NA[1]	No	No
15-0	0.07	NA[2]	NA[2]	NA[2]	No	No
Project Totals	0.07	0.00	0.00	0.00		
Facility Totals	0.17	0.00	0.00	0.00		

Notes:
1. No increase in emissions so unit was not evaluated.
2. The project passed with a prioritization score less than1; therefore, no further analysis was required.

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

Unit # 6-3 & 15-0

1. No special requirements.

2. Project Description

Technical Services received a request on December 18, 2019 to perform a Risk Management Review (RMR) and Ambient Air Quality Analysis (AAQA) for the following:

- Unit -6-3: MODIFICATION OF 500 BBL FIXED ROOF STOCK TANK - 15' D X 16' H: CHANGE TO WASH TANK
- Unit -15-0: 250 BBL FIXED ROOF STOCK TANK EQUIPPED WITH P/V RELIEF VALVE (FONTES COURTNEY LEASE)

3. RMR Report

3.1 Analysis

The District performed an analysis pursuant to the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, May 28, 2015) to determine the possible cancer and non-cancer health impact to the nearest resident or worksite. This policy requires that an assessment be performed on a unit by unit basis, project basis, and on a facility-wide basis. If a preliminary prioritization analysis demonstrates that:

- A unit's prioritization score is less than the District's significance threshold and;
- The project's prioritization score is less than the District's significance threshold and;
- The facility's total prioritization score is less than the District's significance threshold

Then, generally no further analysis is required.

The District's significant prioritization score threshold is defined as being equal to or greater than1.0. If a preliminary analysis demonstrates that either the unit(s) or the project's or the facility's total prioritization score is greater than the District threshold, a screening or a refined assessment is required

If a refined assessment is greater than one in a million but less than 20 in one million for carcinogenic impacts (Cancer Risk) and less than 1.0 for the Acute and Chronic hazard indices(Non-Carcinogenic) on a unit by unit basis, project basis and on a facility-wide basis the proposed application is considered less than significant. For unit's that exceed a cancer risk of 1 in one million, Toxic Best Available Control Technology (TBACT) must be implemented.

Toxic emissions for this project were calculated using the following methods:

- Toxic emissions from Oilfield Fugitives were calculated using emission factors derived from 1991 source tests of central valley sites.

These emissions were input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP). In accordance with the District's Risk Management Policy, risks from the proposed unit's toxic emissions were prioritized using the procedure in the 2016 CAPCOA Facility Prioritization Guidelines. The prioritization score for this proposed unit was less than 1.0 (see RMR Summary Table).Therefore, no further analysis was necessary.

The following parameters were used for the review:

Source Process Rates						
Unit ID	Process ID	Process Material	Process Units	Hourly Process Rate	Annual Process Rate	Receptor Distance (m)
15	1	VOC	Lbs	0.24	2096	321

4. AAQA Report

No AAQA was ran as the only criteria emission from this project are VOCs which have no State or Federal Standards.

5. Conclusion

5.1 RMR

The cumulative prioritization score for the facility, including this project, is less than 1.0. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

To ensure that human health risks will not exceed District allowable levels; the permit requirements listed on page 1 of this report must be included for this proposed unit.

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.

5.2 AAQA

The emissions from the proposed equipment will not cause or contribute significantly to a violation of the State and National AAQS.

6. Attachments

A. Modeling request from the project engineer

B. Additional information from the applicant/project engineer

C. Prioritization score w/ toxic emissions summary

D. Facility Summary

Attachment VIII
Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-5870-6-3 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: KELPETRO OPERATING INC.
MAILING ADDRESS: PO BOX 3388
SANTA MONICA, CA 90408

LOCATION: GAS PRODUCTION
FRESNO COUNTY, CA

SECTION: 26 **TOWNSHIP:** 17S **RANGE:** 19E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 500 BBL FIXED ROOF STOCK TANK - 15' D X 16' H: CHANGE TO WASH TANK (FONTES COURTNEY LEASE)

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. This tank shall only store organic liquid with a true vapor pressure (TVP) of less than 5.0 psia under all storage conditions. [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. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201]
5. 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 gas-tight condition except when the operating pressure exceeds the valve's set pressure. [District Rule 2201]
6. This tank shall be in a leak-free condition. A leak-free condition is defined as a condition without a gas leak. A leak-free condition 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]
7. Tank shall be operated at constant level. [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.

Samir Sheikh, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726 • (559) 230-5900 • Fax (559) 230-6061

8. Crude oil throughput shall not exceed 90 barrels per day based on a monthly average. [District Rule 4623]
9. VOC emission rate from the tank shall not exceed 2.4 lb/day. [District Rule 2201]
10. 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 4623]
11. 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 Rule 4623, 5.7 (Table 3)]
12. 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 Rules 2201 and 4623]
13. {2911} 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 4623]
14. For crude oil with an API Gravity greater than 26 degrees, the TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323-94 (Test Method for Vapor Pressure for Petroleum Products), 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 procedures in Appendix B of Rule 4623. Appendix B is an excerpt from the oil and gas section of "ARB Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative to using ASTM D 323-94, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and US EPA. [District Rule 4623]
15. {2483} 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]
16. {2482} 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 4623]
17. {2912} 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 4623]
18. 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]
19. {2497} 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 4623]
20. {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 Rule 4623]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-5870-15-0

ISSUANCE DATE: DRAFT

DRAFT

LEGAL OWNER OR OPERATOR: KELPETRO OPERATING INC.
MAILING ADDRESS: PO BOX 3388
SANTA MONICA, CA 90408

LOCATION: GAS PRODUCTION
FRESNO COUNTY, CA

EQUIPMENT DESCRIPTION:
250 BBL FIXED ROOF STOCK TANK EQUIPPED WITH P/V RELIEF VALVE (FONTES COURTNEY LEASE)

CONDITIONS

1. PTO C-5870-5-0 shall be cancelled upon implementation of ATC. [District Rule 2201]
2. ATC shall be implemented concurrently with or subsequently to ATC C-5870-6-3. [District Rule 2201]
3. This tank shall only store organic liquid with a true vapor pressure (TVP) of less than 5.0 psia under all storage conditions. [District Rule 2201]
4. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. 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]
6. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201]
7. {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 gas-tight condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623]
8. This tank shall be in a leak-free condition. A leak-free condition is defined as a condition without a gas leak. A leak-free condition 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]

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.

Samir Sheikh, Executive Director / APCO

DRAFT

Arnaud Marjollet, Director of Permit Services

C-5870-15-0 : Jan 16 2020 10:54AM – EDGEHILR : Joint Inspection NOT Required

9. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 4623]
10. VOC emission rate from the tank shall not exceed 5.7 lb/day. [District Rule 2201]
11. 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 4623]
12. 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 Rule 4623, 5.7 (Table 3)]
13. 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 Rules 2201 and 4623]
14. {2911} 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 4623]
15. For crude oil with an API Gravity greater than 26 degrees, the TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323-94 (Test Method for Vapor Pressure for Petroleum Products), 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 procedures in Appendix B of Rule 4623. Appendix B is an excerpt from the oil and gas section of "ARB Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative to using ASTM D 323-94, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and US EPA. [District Rule 4623]
16. {2483} 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]
17. {2482} 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 4623]
18. {2912} 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 4623]
19. 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]
20. {2913} The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623]
21. {2497} 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 4623]
22. {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 Rule 4623]