



MAR 12 2012

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

Re: **Proposed Authorities to Construct / Certificate of Conformity (Minor Mod)**
District Facility # S-1216
Project # 1120347

Dear Mr. Rios:

Enclosed for your review is the District's engineering evaluation of an application for Authorities to Construct for Occidental of Elk Hills Inc, located at facility 10Z within the light oil western stationary source, which has been issued a Title V permit. Occidental of Elk Hills Inc is requesting that a Certificate of Conformity, with the procedural requirements of 40 CFR Part 70, be issued with this project. The project authorizes installation of a new oil treating plant.

Enclosed is the engineering evaluation of this application, a copy of the current Title V permit, and proposed Authorities to Construct # S-1216-172-0 through '-177-0 with Certificate of Conformity. After demonstrating compliance with the Authorities to Construct, the conditions will be incorporated into the facility's Title V permit through an administrative amendment.

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

Thank you for your cooperation in this matter.

Sincerely,



David Warner
Director of Permit Services

Enclosures
cc: Richard Edgehill, Permit Services

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
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MAR 12 2012

Raymond Rodriguez
Occidental of Elk Hills Inc
10800 Stockdale Highway
Bakersfield, CA 93311

**Re: Proposed Authorities to Construct / Certificate of Conformity (Minor Mod)
District Facility # S-1216
Project # 1120347**

Dear Mr. Rodriguez:

Enclosed for your review is the District's analysis of your application for Authorities to Construct for the facility identified above. You have requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The project authorizes installation of a new oil treating plant.

After addressing any EPA comments made during the 45-day comment period, the Authorities to Construct will be issued to the facility with a Certificate of Conformity. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

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

Thank you for your cooperation in this matter.

Sincerely,



David Warner
Director of Permit Services

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San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
New Oil Treating Plant

Facility Name: Occidental of Elk Hills Inc
Mailing Address: 10800 Stockdale Highway
Bakersfield, CA 93311
Contact Person: Raymond Rodriguez
Telephone: (661) 412-6263
Fax:
E-Mail: Raymond_rodriguez@oxy.com
Application #(s): S-1216-172-0 through '-177-0
Project #: 1120347
Deemed Complete: February 22, 2012

Date: February 27, 2012
Engineer: Richard Edgehill
Lead Engineer: Richard Karrs

Rwk
3-8-12

I. Proposal

Occidental of Elk Hills Inc (OEHI) has requested Authorities to Construct (ATCs) for the installation of a new oil treating plant to be used for separation of gas and produced fluids from light crude oil production wells. The facility will consist of two 6500 bbl produced water tanks, one 3000 bbl fixed roof crude oil storage tank, one 1500 bbl fixed roof crude oil storage tank, well tester, three two-phase separators, electric heater, pumps, and associated fugitive emissions components. The new tanks will be served by a common vapor control system (VCS). The produced gas will be sent to a gas pipeline using two new 250 hp compressors.

The project results in a small increase in fugitive emissions triggering offsets. BACT and public notice are not required.

OEHI S-1216 received their Title V Permit on January 31, 2012. This modification can be classified as a Title V minor modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. OEHI must apply to administratively amend their Title V permit.

II. Applicable Rules

Rule 2010	Exemptions (8/18/11)
Rule 2201	New and Modified Stationary Source Review Rule (4/21/11)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4001	New Source Performance Standards (4/14/99)

40 CFR Part 60, Subpart Kb: Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 – **not applicable** - capacity of the new tanks is $\leq 420,000$ gallons, and crude oil is stored prior to custody transfer; therefore, this subpart does not apply to the tanks in this project.

40 CFR Part 60, **Subpart KKK**—Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants- **not applicable** – new compressors are not located at natural gas processing plant

Rule 4102 Nuisance (12/17/92)
Rule 4409 Components at Light Crude Oil Production Facilities, Natural Gas
Production Facilities, and Natural Gas Processing Facilities (4/30/05)
Rule 4623 Storage of Organic Liquids (5/19/05)
Rule 4801 Sulfur Compounds (12/17/92)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA
Guidelines

III. Project Location

The new oil treating facility will be located at OEHI's light oil western stationary source at the SW ¼ of the 10Z facility, 2 miles NE of McKittrick, CA, SW Section 10, T30S, R22E. The facility will not be located near residential areas, sensitive receptors or within 1000 feet of any school.

IV. Process Description

Crude oil production from nearby wells is routed to the new 10 Z tank setting. Produced fluid enters a well test unit (V-200) followed by two 3-phase separators (V-1 and V-3). Note that a small electric heater (E-1) will be used to heat the oil/water mixture prior to entering treating vessel V-3. Four tanks (T-101 through T-104, S-1216-172 through '-175) will be installed and will store produced water and crude oil prior to custody transfer. The tanks will be equipped with vapor recovery vented to a gas gathering system via two 250 hp compressors (C-001 and C-002, S-1216-176 and '-177). The collected gas will ultimately be sent to the OEHI 35R gas plant.

Process Flow Diagrams are included in **Attachment I**.

V. Equipment Listing

S-1216-172-0: 6,500 BBL FIXED-ROOF PRODUCED WATER TANK (T-101) SERVED BY A VAPOR CONTROL SYSTEM SHARED WITH TANKS S-1216-173 THROUGH

-175, WELL TEST UNIT V-200, THREE-PHASE SEPARATORS V-1 AND V-3, ELECTRIC HEATER E-1, AND WASTEWATER PUMPS P-101/102 (10Z TANK SETTING)

Tank T-101, 6500 bbl
V-200, vertical well test unit 30" dia x 10 'high (49 cu ft, 366 gallons)
V-1, 3-phase separator, 10 ft dia x 30 ft long (2355 cu ft, 17,615 gallons)
V-3, 3-phase separator, 6 ft dia x 30 ft long (848 cu ft, 6342 gallons)
P-101/102, wastewater pumps
E-1, 2 MMBtu/hr electric heater

S-1216-173-0: 6,500 BBL FIXED-ROOF PRODUCED WATER TANK (T-102) SERVED BY VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1216-172 (10Z TANK SETTING)

Tank T-102, 6500 bbl
P-112/113 crude oil pumps

S-1216-174-0: 3,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK (T-103) SERVED BY VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1216-172 (10Z TANK SETTING)

Tank T-103, 3000 bbl
P-104/105/106 crude oil pumps
P-107/108/109 LACT unit pumps
P-118/119 wastewater pumps

S-1216-175-0: 1,500 BBL FIXED-ROOF CRUDE OIL TANK (T-104) SERVED BY SHARED VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1216-172 (10Z TANK SETTING)

Tank T-104, 1500 bbl
P-110/111 wastewater pumps

S-1216-176-0: 250 HP ELECTRICALLY-DRIVEN FIELD GAS COMPRESSOR (C-001) AND TWO-PHASE SEPARATOR V-5 (10Z TANK SETTING)

Compressor C-001, 250 hp
V-5, gas-liquid separator, 66" dia x 13 ft high (309 cu ft, 2,309 gallons)

S-1216-177-0: 250 HP ELECTRICALLY-DRIVEN FIELD GAS COMPRESSOR (C-002) (10Z TANK SETTING)

Compressor C-002, 250 hp

VI. Emission Control Technology Evaluation

Fugitive Emissions (all ATCs)

Leaks from fugitive emissions components will be controlled by implementation of an I&M program consistent with the requirements of Rule 4409. Because emissions are calculated using EPA Average Leak Rate equations with a leak threshold of 2000 ppmv for all components except tank components and 10,000 ppmv for components from tanks S-1216-172 through '-175 to vapor control system truck line, leaks exceeding these thresholds are a violation of the permit as stated in the following condition:

A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 2,000 (10,000) parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Y

VII. General Calculations

A. Assumptions

- Facility operates 24 hr/day 365 days per year.
- The VOC content of fugitive emissions is 100% by weight.

B. Emission Factors

Fugitive Emissions

Fugitive VOC emissions have been quantified for Average Leak Rate (ALR) equations with a leak threshold (other equipment) in EPA, "Protocol for Estimating Leak Emissions" (EPA – 453/R-95-017, November 1995) Table 5-7, "Equation Relating Average Leak Rate to Fraction Leaking at Oil and Gas Production Operation Units" (**Attachment II**). The leak threshold is 2000 ppm for all emissions units except tanks S-1216-172 through '-175 which have a leak threshold of 10,000 ppmv. In calculating the DEL associated with fugitive emissions, the "LKFRAC" term in these equations, representing the number of allowable leaks, was assumed to be zero.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Since this is a new emissions unit, PE1 = 0 for all pollutants.

2. Post Project Potential to Emit (PE2)

Fugitive Emissions

Permit unit	VOC PE2 (lb/day)	VOC PE2 (lb/yr)
T-101	0.213	
VCS	0.097	
V-1	0.115	
V-3	0.122	
V-200	0.138	
P-101/102	0.18	
E-1	0.012	
S-1216-172 (total)	0.877	320
T-102	0.213	
P-112/113	0.13	
S-1216-173 (total)	0.343	125
T-103	0.213	
P-104/105/106	.162	
P-107/108/109	.202	
P-118/119	.198	
S-1216-174 (total)	0.775	283
T-104	0.213	
P-110/111	0.198	
S-1216-175 (total)	0.411	150
C-001	0.413	
V-5	0.062	
S-1216-176 (total)	0.475	173
C-002	0.413	
S-1216-177 (total)	0.413	151

Permit unit	VOC - Daily PE1 (lb/day)	VOC- Annual PE1 (lb/Year)
S-1216-172	0.9	320
S-1216-173	0.3	125
S-1216-174	0.8	283
S-1216-175	0.4	150
S-1216-176	0.5	173
S-1216-177	0.4	151

The emissions profiles are included in **Attachment III**.

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

Pursuant to District Rule 2201, the 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 (AER) that have occurred at the source, and which have not been used on-site.

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

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

Pursuant to District Rule 2201, the SSPE2 is the PE from all units with valid ATCs or PTOs at the Stationary Source and the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site.

Since facility emissions are already above the Offset and Major Source Thresholds for VOC emissions, SSPE2 calculations are not necessary.

5. Major Source Determination

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.

6. Baseline Emissions (BE)

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

Pursuant to District Rule 2201, BE = PE1 for:

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

otherwise,

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

S-1216-172 through '-177:

Since these are new emissions units, BE = PE1 = 0 for all pollutants.

7. SB 288 Major Modification

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

Since this source is not included in the 28 specific source categories specified in 40 CFR 51.165, the increases in fugitive emissions are not included in the SB 288 Major Modification calculation.

This project does not constitute a SB288 Major Modification.

8. Federal Major Modification

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

Since this source is not included in the 28 specific source categories specified in 40 CFR 51.165, the increases in fugitive emissions are not included in the Federal Major Modification determination.

This project does not constitute a Federal Major Modification.

9. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District’s PAS emissions profile screen. As the permit units are new QNEC = PE2/4.

VIII. Compliance

Rule 2020 Exemptions

The project includes unvented pressure vessels V-200, V-1, V-3, and V-5 i.e. “ tank, reservoir, or container that is capable of maintaining working pressures sufficient to prevent organic liquid loss or VOC loss to the atmosphere at all times.”

Rule 2020 section 6.14 states that fugitive emissions sources and pressure vessels that are associated with an emissions unit for which a written permit is required, shall be included as part of such emissions unit. A separate permit for the fugitive source or pressure vessel is not required.

Compliance is expected.

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

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

- a. Any new emissions unit with a potential to emit exceeding two pounds per day,
- b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
- c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or

- d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

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

No relocations or modifications are proposed (items b and c above). Additionally, this project is not a SB 288 or Federal Major Modification and none of the new emissions units have a PE exceeding 2 lb/day. Therefore BACT is not triggered.

B. Offsets

1. Offset Applicability

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

The SSPE2 exceeds the offsets threshold for VOCs and therefore calculations are required.

2. Quantity of Offsets Required

The facility is proposing to install new emissions units; therefore Baseline Emissions are equal to zero. Also, there are no increases in cargo carrier emissions. Offsets can be determined as follows:

Offsets Required (lb/year) = PE2 x DOR

Offsets Required (lb/year)

Permit unit	PE2 (lb/day)	IPE (lb/day)*	IPE (lb/yr)
S-1216-172	0.9	0.9	320
S-1216-173	0.3	0	0
S-1216-174	0.8	0.8	283
S-1216-175	0.4	0	0
S-1216-176	0.5	0	0
S-1216-177	0.4	0	0
Total			603

*District policy APR 1130 states that IPEs less than or equal to 0.5 lb/day to be set to zero for purposes of providing emission offsets. This change allows an IPE that rounds to 0.5 lb/day, e.g. less than 0.54 lb/day, to be set to zero for purposes of providing emission offsets.

The applicant has stated that the facility plans to use ERC S-1776-1 to offset the increases in VOC emissions associated with this project. The reductions occurred at

the light oil western (same) stationary source S-382. Therefore the correct offset ratio is 1.0:1.

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

S-1216-172 – 320/4 = 80 lb/qtr

S-1216-174 – 283/4 = 71 lb/qtr

Total 151 lb/qtr

<u>Pollutant</u>	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
VOC	151	151	151	151

The ERCs have been reserved as indicated in the table below.

Reserved in PAS

<u>ERC #*</u>	<u>1st Qtr</u>	<u>2nd Qtr</u>	<u>3rd Qtr</u>	<u>4th Qtr</u>
S-1776-1	151	172*	130	151

*21 lb/qtr to be transferred from 2nd qtr to 3rd qtr

Rule 2201 Section 4.13.8 AER for NO_x and VOC that occurred from April through November (2nd and 3rd qtrs) may be used to offset increases in NO_x and VOC during any period of the year.

As seen above, the facility has sufficient credits to fully offset the quarterly NO_x, SO_x, PM₁₀ and VOC emissions increases associated with this project.

Proposed Rule 2201 (offset) Conditions:

S-1216-172-0

Prior to operating equipment under this Authority to Construct, permittee shall surrender emission reduction credits for the following quantities of emissions: VOC: 80 lb/qtr. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Y

ERC Certificate Numbers S-1776-1 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Y

S-1216-174-0

Prior to operating equipment under this Authority to Construct, permittee shall surrender emission reduction credits for the following quantities of emissions: VOC: 71 lb/qtr. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Y

ERC Certificate Numbers S-1776-1 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Y

C. Public Notification

1. Applicability

Public noticing is required for:

- a. 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, this project does not constitute an SB 288 or Federal Major Modification; therefore, public noticing for SB 288 or Federal Major Modification purposes is not required.

b. PE > 100 lb/day

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

c. Offset Threshold

SSPE1 exceeds the offset threshold for VOCs. Therefore, the VOC offsets threshold was not surpassed by the project; therefore public noticing is not required for offset purposes.

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a SSIPE of more than 20,000 lb/year of any affected pollutant. According to District policy, the $SSIPE = SSPE2 - SSPE1$. The SSIPE for the project, 603 lb/yr, is less than 20,000 lb/year; therefore public noticing for SSIPE purposes is not required.

2. Public Notice Action

As discussed above, this project will not result in emissions, for any pollutant, which would subject the project to any of the noticing requirements listed above. Therefore, public notice will not be required for this project.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the

maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

Proposed Rule 2201 (DEL) Conditions:

S-1216-172

VOC fugitive emissions from tank and from components in piping from tank to vapor control system trunk line shall not exceed 0.2 lb/day. [District Rule 2201] Y

VOC fugitive emissions from tank vapor control system shall not exceed 0.1 lb/day. [District Rule 2201] Y

VOC fugitive emissions from tank and from components in piping from tank to vapor control system trunk line shall not exceed 0.2 lb/day. [District Rule 2201] Y

VOC fugitive emissions from tank vapor control system shall not exceed 0.1 lb/day. [District Rule 2201] Y

VOC fugitive emissions from gas/liquid separators shall not exceed 0.4 lb/day. [District Rule 2201] Y

VOC fugitive emissions from associated pumps and electric heater shall not exceed 0.2 lb/day. [District Rule 2201] Y

S-1216-173

VOC fugitive emissions from tank and from components in piping from tank to vapor control system trunk line shall not exceed 0.2 lb/day. [District Rule 2201] Y

VOC fugitive emissions from associated pumps shall not exceed 0.1 lb/day. [District Rule 2201] Y

S-1216-174

VOC fugitive emissions from tank and from components in piping from tank to vapor control system trunk line shall not exceed 0.2 lb/day. [District Rule 2201] Y

VOC fugitive emissions from associated pumps shall not exceed 0.6 lb/day. [District Rule 2201] Y

S-1216-175

VOC fugitive emissions from tank and from components in piping from tank to vapor control system trunk line shall not exceed 0.2 lb/day. [District Rule 2201] Y

VOC fugitive emissions from associated pumps shall not exceed 0.2 lb/day. [District Rule 2201] YY

S-1216-176

VOC fugitive emissions from gas liquid separator shall not exceed 0.1 lb/day. [District Rule 2201] Y

VOC fugitive emissions from compressor shall not exceed 0.4 lb/day. [District Rule 2201] Y
Y

S-1216-177

VOC fugitive emissions from compressor shall not exceed 0.4 lb/day. [District Rule 2201] Y

E. Compliance Assurance

1. Source Testing

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

2. Monitoring

Tank leak monitoring is required. An example condition from ATC S-1216-172-0 is listed below.

Operator shall visually inspect storage tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shell and roof of the uninsulated tank for structural integrity annually. [District Rules 2201 and 4623] Y

3. Recordkeeping

Fugitive emissions records must be kept. An example condition from ATC S-1216-172-0 is listed below.

Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from tank components and from components in piping from the tank to vapor control system truck line calculated using (ALR) equations for a 10,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Y

Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from the tank vapor control system, well tester V-200, three-phase separators V-1 and V-3, heater E-1, and wastewater pumps P-101/102 calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Y

The following permit condition will be listed on all the ATCs:

{2983} All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4320]

4. Reporting

Leaks from fugitive emissions must be reported. An example condition from ATC S-1216-172-0 is listed below.

S-1216-172-0

A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv) for tank components and for

components in piping from the tank to vapor control system truck line and 2,000 parts per million by volume (ppmv) for all other components including the tank vapor control system, separators, heater, and pumps. The ppmv readings, as methane above background, shall be taken using a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4623] Y

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. The proposed modification is a Minor Modification to the Title V Permit.

In accordance with Rule 2520, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
 - a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
 - b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

As discussed above, the facility has applied for a Certificate of Conformity (COC). Therefore, the facility must apply to modify their Title V permit with an administrative amendment prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility may construct/operate under the ATC upon submittal of the Title V administrative amendment/minor modification application.

OEHI's Title V Compliance Certification form is included in **Attachment IV**.

Rule 4102 Nuisance

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

California Health & Safety Code 41700 (Health Risk Assessment)

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

An HRA is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (**Attachment V**), the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

The cancer risk for this project is shown below:

HRA Summary		
Unit	Cancer Risk	T-BACT Required
S-1216-172-0 through '-177-0	0.0 per million	No

The project is approvable without TBACT.

Rule 4409 Component at Light Crude Oil Production Facilities, Natural Gas Production Facilities, and Natural Gas Processing Facilities

The proposed oil treating plant is subject to the rule requirements as listed in the facility wide PTO S-1216-0-1. Compliance is expected.

Rule 4623 Storage of Organic Liquids

Section 5.1 requires that an operator shall not place, hold, or store organic liquid in any tank unless such tank is equipped with a VOC control system. The new tanks will be connected to vapor control system vented to a gas pipeline. The expected control efficiency is 99%.

The following conditions will be included on the ATCs:

Vapor Controlled Tank S-1216-172 through '-175

Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201] Y

Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rules 2201 and 4623] Y

The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rules 2201 and 4623] Y

All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623] Y

A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rules 2201 and 4623] Y

Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Y

Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shell and roof of the uninsulated tank for structural integrity annually. [District Rules 2201 and 4623] Y

Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rules 2201 and 4623] Y

Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection [District Rules 2201 and 4623] Y

Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 and 4623] Y

Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rules 2201 and 4623] Y

If a component type for the tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2201 and 4623] Y

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 2201] Y

Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623] Y

California Health & Safety Code 42301.6 (School Notice)

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

California Environmental Quality Act (CEQA)

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

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;

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

The District performed an Engineering Evaluation (this document) for the proposed project and determined that all project specific emission unit(s) are exempt from Best Available Control Technology (BACT) requirements. Furthermore, the District conducted a Risk Management Review and concludes that potential health impacts are less than significant.

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

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful COC Noticing period, issue ATCs S-1216-172-0 through '-177-0 subject to the permit conditions on the attached draft ATC in **Attachment VI**.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-1216-172	3020-05E	273,000 gallons	\$246.00
S-1216-173	3020-05E	273,000 gallons	\$246.00
S-1216-174	3020-05E	126,000 gallons	\$246.00
S-1216-175	3020-05D	63,000 gallons	\$185.00
S-1216-176	3020-01E	250 hp	\$412.00
S-1216-177	3020-01E	250 hp	\$412.00

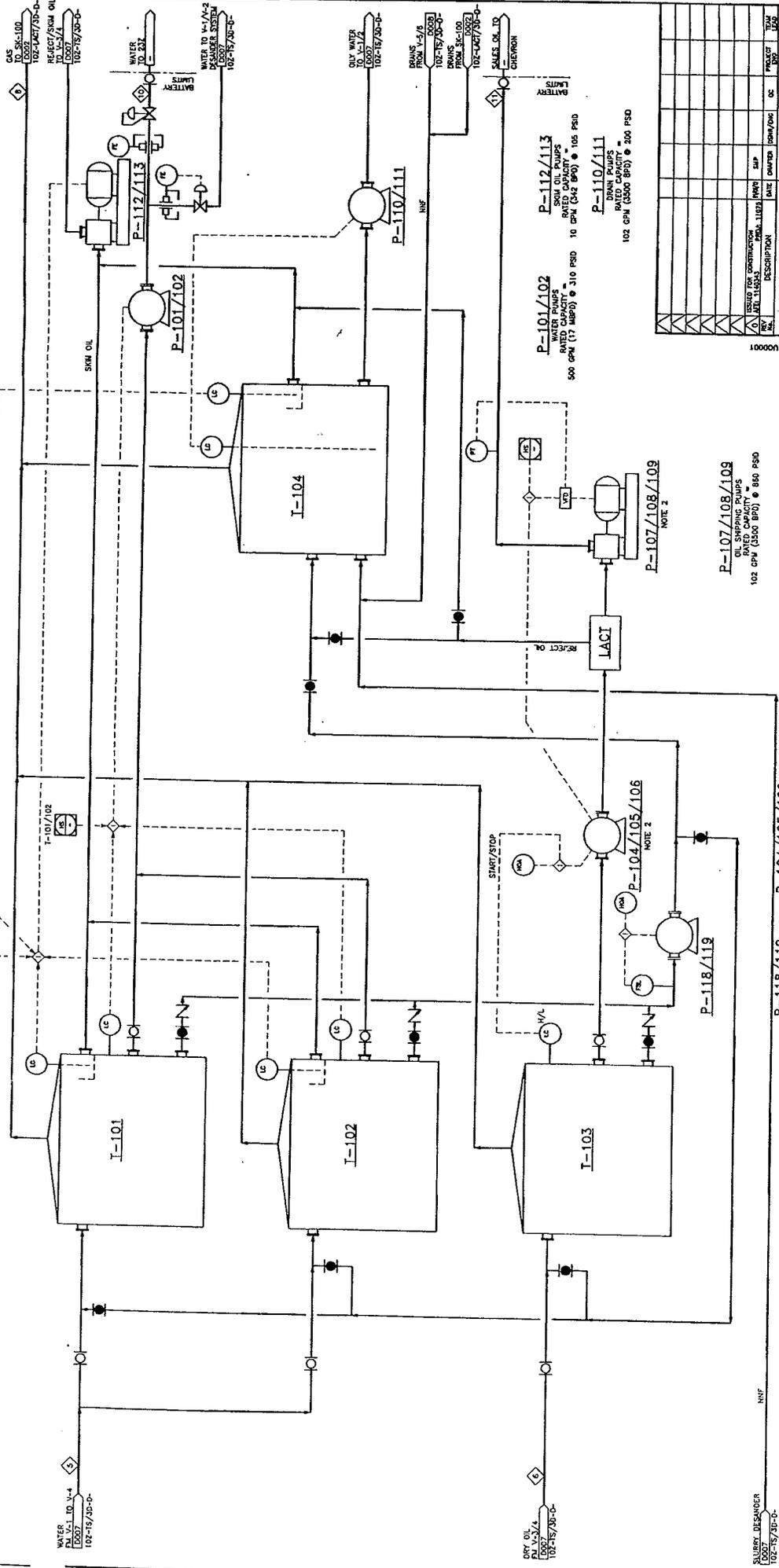
Attachments

- I: Process Flow Diagrams
- II: Fugitive Emissions Calculations
- III: Emissions Profiles
- IV: Compliance Certification
- V: HRA Summary
- VI: Draft ATCs

ATTACHMENT I

Process Flow Diagrams

CAPACITY = 1,800 BBL



P-101/102
 WATER PUMPS
 RATED CAPACITY = 500 GPM (17 MGD) @ 310 PSID

P-110/111
 INK PUMPS
 RATED CAPACITY = 102 GPM (3500 BPD) @ 105 PSID

P-112/113
 SKIM OIL PUMPS
 RATED CAPACITY = 102 GPM (3500 BPD) @ 105 PSID

P-107/108/109
 OIL SPREADING PUMPS
 RATED CAPACITY = 102 GPM (3500 BPD) @ 860 PSID

P-104/105/106
 CHANGE PUMPS
 RATED CAPACITY = 102 GPM (3500 BPD) @ 105 PSID

P-118/119
 TRANSFER PUMPS
 RATED CAPACITY = 102 GPM (3500 BPD) @ 105 PSID

P-104/105/106
 CHANGE PUMPS
 RATED CAPACITY = 102 GPM (3500 BPD) @ 105 PSID

P-110/111
 INK PUMPS
 RATED CAPACITY = 102 GPM (3500 BPD) @ 300 PSID

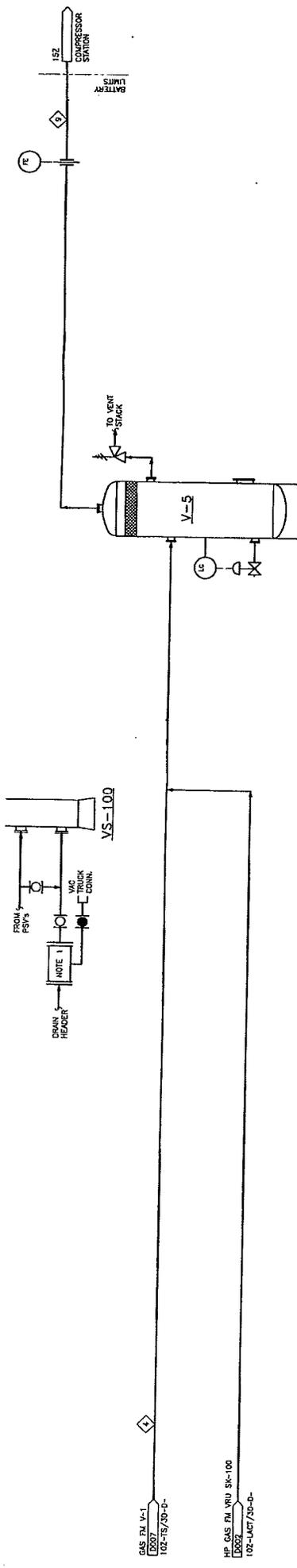
NOTES:
 1. INK = NORMALLY NO FLOW
 2. 3 x 50% PUMPS

STREAM NO.	DESCRIPTION	UNITS	WATER TO T-101/102	OIL TO T-103	TANK GAS TO VHU	WATER TO 252	107 PRODUCTION	107 PRODUCED OIL
TEMPERATURE			81	130	108	81	330	330
PRESSURE	PSIA		40	40	15	160	650	650
GAS FLOWRATE	MMSCFD		0	0	40	0	0	0
WATER FLOWRATE	BPD		86893	157	0	68813	633	633
OIL FLOWRATE	BPD		33	2995	0	30	730	730
TOTAL LIQUID FLOWRATE	BPD		67026	7752	0	68843	784	784

NO.	ISSUED FOR	CONTRACT NO.	DATE	BY	APPROVALS
1	FOR CONSTRUCTION	102-11023			
2	FOR CONSTRUCTION	102-11023			
3	FOR CONSTRUCTION	102-11023			
4	FOR CONSTRUCTION	102-11023			
5	FOR CONSTRUCTION	102-11023			
6	FOR CONSTRUCTION	102-11023			
7	FOR CONSTRUCTION	102-11023			
8	FOR CONSTRUCTION	102-11023			
9	FOR CONSTRUCTION	102-11023			
10	FOR CONSTRUCTION	102-11023			

ELK HILLS FIELD
 OCCIDENTAL OF ELK HILLS, INC.
 UNIT OPERATOR
 102
 LEASE AUTOMATED CUSTODY TRANSFER NO. 3D
 COMMON TANKS AND PUMPS
 PROCESS FLOW DIAGRAM
 DRAWING NO. 102-LACT/3D-D-0001
 SHEET REV. SCALE - 0 NONE
 12/05/12 1200:00

REV. DATE X 137 5/5



GAS FM V-1
10007
102-15/30-D

HP GAS FM VRU SK-100
10002
102-1407/30-D

ISSUED FOR PERMIT
JANUARY 04, 2012

STREAM NO.	DESCRIPTION	UNITS	HP GAS TO V-5/6 PER TRAIN	102 PRODUCED GAS TO 152 PER TRAIN
	TEMPERATURE	F	81	88
	PRESSURE	PSIA	97	97
	GAS FLOWRATE	MMSGPD	18	18
	WATER FLOWRATE	BPD	0	0
	CHL FLOWRATE	BPD	0	0
	TOTAL LIQUID FLOWRATE	BPD	0	0

REV.	ISSUED FOR PERMIT	DATE	BY	CHK	PROJECT	TEAM
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

APPROVALS

ELK HILLS FIELD

OCCIDENTAL OF ELK HILLS, INC.

UNIT OPERATOR
102

TANK SETTING NO. 3D
GAS SCRUBBERS & VENT STACK
PROCESS FLOW DIAGRAM

DRAWING No. 102-TS/3D-D-0008
SHEET REV. SCALE
- 0 NONE



ATTACHMENT II Fugitive Emissions Calculations

Fugitive VOC Emissions From Components
 Calculated From Component Counts and EPA ALR Emission Factors

- 1772

Fugitive Emissions From Well Test Vessel-V200 and Associated Components

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor (lb/day*Component)	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	2	2,000	0.0000	7.392E-04	0.001	0.001	0.001
	Light Crude Oil	29	2,000	0.0000	7.392E-04	0.021	0.021	0.008
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	0	2,000	0.0000	1.214E-02	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	1.003E-02	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	12	2,000	0.0000	2.376E-03	0.029	0.029	0.011
	Light Crude Oil	4	2,000	0.0000	3.379E-03	0.014	0.014	0.005
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000
Connectors	Gas/Light Liquid	99	2,000	0.0000	4.488E-04	0.044	0.044	0.017
	Light Crude Oil	44	2,000	0.0000	4.541E-04	0.020	0.020	0.007
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	21	2,000	0.0000	1.373E-04	0.003	0.003	0.001
	Light Crude Oil	70	2,000	0.0000	8.448E-05	0.006	0.006	0.002
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	3.538E-05	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.1381	0.138	0.052
Gas	VOC content (%) of TOG		100.00			Methane content (%) of TOG		
Liquid	VOC content (%) of TOG		100.00			Methane content (%) of TOG		
								37.50
								37.50

Fugitive VOC Emissions From Components
 Calculated From Component Counts and EPA ALR Emission Factors

1-17-12

Fugitive Emissions From FWKO Vessel V-1 and Associated Components

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor Component (lb/day)	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	0	2,000	0.0000	7.392E-04	0.000	0.000	0.000
	Light Crude Oil	93	2,000	0.0000	7.392E-04	0.069	0.069	0.026
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	0	2,000	0.0000	1.214E-02	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	1.003E-02	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	5	2,000	0.0000	2.376E-03	0.012	0.012	0.004
	Light Crude Oil	0	2,000	0.0000	3.379E-03	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000
Connectors	Gas/Light Liquid	0	2,000	0.0000	4.488E-04	0.000	0.000	0.000
	Light Crude Oil	56	2,000	0.0000	4.541E-04	0.025	0.025	0.010
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	9	2,000	0.0000	1.373E-04	0.001	0.001	0.000
	Light Crude Oil	90	2,000	0.0000	8.448E-05	0.008	0.008	0.003
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	3.538E-05	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.145	0.145	0.043
Gas	VOC content (%) of TOG				100.00	Methane content (%) of TOG		
Liquid	VOC content (%) of TOG				100.00	Methane content (%) of TOG		

Fugitive VOC Emissions From Components
 Calculated From Component Counts and EPA ALR Emission Factors

1-1772

Fugitive Emissions From Crude Oil Heater E-1 and Associated Components

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor Component (lb/day/Component)	Fugitive Emissions			
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)	
Valves	Gas/Light Liquid	0	2,000	0.0000	7.392E-04	0.000	0.000	0.000	
	Light Crude Oil	4	2,000	0.0000	7.392E-04	0.003	0.003	0.001	
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000	
Pump Seals	Gas/Light Liquid	0	2,000	0.0000	1.214E-02	0.000	0.000	0.000	
	Light Crude Oil	0	2,000	0.0000	1.003E-02	0.000	0.000	0.000	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Others	Gas/Light Liquid	0	2,000	0.0000	2.376E-03	0.000	0.000	0.000	
	Light Crude Oil	0	2,000	0.0000	3.379E-03	0.000	0.000	0.000	
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000	
Connectors	Gas/Light Liquid	0	2,000	0.0000	4.488E-04	0.000	0.000	0.000	
	Light Crude Oil	17	2,000	0.0000	4.541E-04	0.008	0.008	0.003	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Flanges	Gas/Light Liquid	0	2,000	0.0000	1.373E-04	0.000	0.000	0.000	
	Light Crude Oil	10	2,000	0.0000	8.448E-05	0.001	0.001	0.000	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000	
	Light Crude Oil	0	2,000	0.0000	3.538E-05	0.000	0.000	0.000	
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000	
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.012	0.012	0.004	
Gas	VOC content (%) of TOG		100.00					Methane content (%) of TOG	37.50
Liquid	VOC content (%) of TOG		100.00					Methane content (%) of TOG	37.50

**Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors**

1-172

Fugitive Emissions From Treating Vessel V-3 and Associated Components

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor (lb/day Component)	Fugitive Emissions			
						TOG (lb/day)	VOC (lb/day)	Methane (lb/day)	
Valves	Gas/Light Liquid	0	2,000	0.0000	7.392E-04	0.000	0.000	0.000	
	Light Crude Oil	93	2,000	0.0000	7.392E-04	0.069	0.069	0.026	
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000	
Pump Seals	Gas/Light Liquid	0	2,000	0.0000	1.214E-02	0.000	0.000	0.000	
	Light Crude Oil	0	2,000	0.0000	1.003E-02	0.000	0.000	0.000	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Others	Gas/Light Liquid	5	2,000	0.0000	2.376E-03	0.012	0.012	0.004	
	Light Crude Oil	2	2,000	0.0000	3.379E-03	0.007	0.007	0.003	
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000	
Connectors	Gas/Light Liquid	0	2,000	0.0000	4.488E-04	0.000	0.000	0.000	
	Light Crude Oil	56	2,000	0.0000	4.541E-04	0.025	0.025	0.010	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Flanges	Gas/Light Liquid	9	2,000	0.0000	1.373E-04	0.001	0.001	0.000	
	Light Crude Oil	92	2,000	0.0000	8.448E-05	0.008	0.008	0.003	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000	
	Light Crude Oil	0	2,000	0.0000	3.538E-05	0.000	0.000	0.000	
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000	
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.122	0.122	0.046	
Gas	VOC content (%) of TOG				100.00	Methane content (%) of TOG			37.50
Liquid	VOC content (%) of TOG				100.00	Methane content (%) of TOG			37.50

Fugitive VOC Emissions From Components
 Calculated From Component Counts and EPA ALR Emission Factors

L-1772

Fugitive Emissions From Tank T-101 and Associated Components (10,000 ppmv Leak)

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor Component	Fugitive Emissions			
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)	
Valves	Gas/Light Liquid	12	10,000	0.0000	1.320E-03	0.016	0.016	0.006	
	Light Crude Oil	24	10,000	0.0000	1.003E-03	0.024	0.024	0.009	
	Heavy Crude Oil	0	10,000	0.0000	4.435E-04	0.000	0.000	0.000	
Pump Seals	Gas/Light Liquid	0	10,000	0.0000	1.848E-02	0.000	0.000	0.000	
	Light Crude Oil	0	10,000	0.0000	2.693E-02	0.000	0.000	0.000	
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000	
Others	Gas/Light Liquid	5	10,000	0.0000	6.336E-03	0.032	0.032	0.012	
	Light Crude Oil	5	10,000	0.0000	7.392E-03	0.037	0.037	0.014	
	Heavy Crude Oil	0	10,000	0.0000	1.848E-01	0.000	0.000	0.000	
Connectors	Gas/Light Liquid	96	10,000	0.0000	5.280E-04	0.051	0.051	0.019	
	Light Crude Oil	96	10,000	0.0000	5.122E-04	0.049	0.049	0.019	
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000	
Flanges	Gas/Light Liquid	10	10,000	0.0000	3.010E-04	0.003	0.003	0.001	
	Light Crude Oil	10	10,000	0.0000	1.267E-04	0.001	0.001	0.000	
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000	
Open-ended Lines	Gas/Light Liquid	0	10,000	0.0000	7.920E-04	0.000	0.000	0.000	
	Light Crude Oil	0	10,000	0.0000	7.392E-04	0.000	0.000	0.000	
	Heavy Crude Oil	0	10,000	0.0000	3.802E-04	0.000	0.000	0.000	
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.2127	0.2127	0.080	
Gas	VOC content (%) of TOG		100.00					Methane content (%) of TOG	37.50
Liquid	VOC content (%) of TOG		100.00					Methane content (%) of TOG	37.70

Fugitive VOC Emissions From Components
 Calculated From Component Counts and EPA ALR Emission Factors

1-1772

Fugitive Emissions From VRS Tank Piping System To Field Gas Compressor

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day/Component	Fugitive Emissions			
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)	
Valves	Gas/Light Liquid	24	2,000	0.0000	7.392E-04	0.018	0.018	0.007	
	Light Crude Oil	0	2,000	0.0000	7.392E-04	0.000	0.000	0.000	
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000	
Pump Seals	Gas/Light Liquid	0	2,000	0.0000	1.214E-02	0.000	0.000	0.000	
	Light Crude Oil	0	2,000	0.0000	1.003E-02	0.000	0.000	0.000	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Others	Gas/Light Liquid	3	2,000	0.0000	2.376E-03	0.007	0.007	0.003	
	Light Crude Oil	0	2,000	0.0000	3.379E-03	0.000	0.000	0.000	
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000	
Connectors	Gas/Light Liquid	0	2,000	0.0000	4.488E-04	0.000	0.000	0.000	
	Light Crude Oil	156	2,000	0.0000	4.541E-04	0.071	0.071	0.027	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Flanges	Gas/Light Liquid	12	2,000	0.0000	1.373E-04	0.002	0.002	0.001	
	Light Crude Oil	0	2,000	0.0000	8.448E-05	0.000	0.000	0.000	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000	
	Light Crude Oil	0	2,000	0.0000	3.538E-05	0.000	0.000	0.000	
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000	
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.097	0.097	0.037	
Gas	VOC content (%) of TOG		100.00					Methane content (%) of TOG	37.50
Liquid	VOC content (%) of TOG		100.00					Methane content (%) of TOG	37.50

Fugitive VOC Emissions From Components
 Calculated From Component Counts and EPA ALR Emission Factors

1-173

Fugitive Emissions From Tank T-102 and Associated Components (10,000 ppmv Leak)

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day/Component	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	12	10,000	0.0000	1.320E-03	0.016	0.016	0.006
	Light Crude Oil	24	10,000	0.0000	1.003E-03	0.024	0.024	0.009
	Heavy Crude Oil	0	10,000	0.0000	4.435E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	0	10,000	0.0000	1.848E-02	0.000	0.000	0.000
	Light Crude Oil	0	10,000	0.0000	2.693E-02	0.000	0.000	0.000
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	5	10,000	0.0000	6.336E-03	0.032	0.032	0.012
	Light Crude Oil	5	10,000	0.0000	7.392E-03	0.037	0.037	0.014
	Heavy Crude Oil	0	10,000	0.0000	1.848E-01	0.000	0.000	0.000
Connectors	Gas/Light Liquid	96	10,000	0.0000	5.280E-04	0.051	0.051	0.019
	Light Crude Oil	96	10,000	0.0000	5.122E-04	0.049	0.049	0.018
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	10	10,000	0.0000	3.010E-04	0.003	0.003	0.001
	Light Crude Oil	10	10,000	0.0000	1.267E-04	0.001	0.001	0.000
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	10,000	0.0000	7.920E-04	0.000	0.000	0.000
	Light Crude Oil	0	10,000	0.0000	7.392E-04	0.000	0.000	0.000
	Heavy Crude Oil	0	10,000	0.0000	3.802E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.213	0.213	0.080
Gas	VOC content (%) of TOG				100.00	Methane content (%) of TOG		
Liquid	VOC content (%) of TOG				100.00	Methane content (%) of TOG		

Fugitive VOC Emissions From Components
 Calculated From Component Counts and EPA ALR Emission Factors

1-173

Fugitive Emissions From Pumps P-112 / P-113 and Associated Components (2,000 ppmv Leak)

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day/Component	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	0	2,000	0.0000	7.392E-04	0.000	0.000	0.000
	Light Crude Oil	48	2,000	0.0000	7.392E-04	0.035	0.035	0.013
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	0	2,000	0.0000	1.214E-02	0.000	0.000	0.000
	Light Crude Oil	5	2,000	0.0000	1.003E-02	0.050	0.050	0.019
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	0	2,000	0.0000	2.376E-03	0.000	0.000	0.000
	Light Crude Oil	5	2,000	0.0000	3.379E-03	0.017	0.017	0.006
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000
Connectors	Gas/Light Liquid	0	2,000	0.0000	4.488E-04	0.000	0.000	0.000
	Light Crude Oil	48	2,000	0.0000	4.541E-04	0.022	0.022	0.008
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	0	2,000	0.0000	1.373E-04	0.000	0.000	0.000
	Light Crude Oil	72	2,000	0.0000	8.448E-05	0.006	0.006	0.002
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	3.538E-05	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.130	0.130	0.049
Gas	VOC content (%) of TOG				100.00	Methane content (%) of TOG		
Liquid	VOC content (%) of TOG				100.00	Methane content (%) of TOG		

Fugitive VOC Emissions From Components
 Calculated From Component Counts and EPA ALR Emission Factors

1-174

Fugitive Emissions From Tank T-103 and Associated Components (10,000 ppmv Leak)

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor (lb/day*Component)	Fugitive Emissions			
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)	
Valves	Gas/Light Liquid	12	10,000	0.0000	1.320E-03	0.016	0.016	0.006	
	Light Crude Oil	24	10,000	0.0000	1.003E-03	0.024	0.024	0.009	
	Heavy Crude Oil	0	10,000	0.0000	4.435E-04	0.000	0.000	0.000	
Pump Seals	Gas/Light Liquid	0	10,000	0.0000	1.848E-02	0.000	0.000	0.000	
	Light Crude Oil	0	10,000	0.0000	2.693E-02	0.000	0.000	0.000	
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000	
Others	Gas/Light Liquid	5	10,000	0.0000	6.336E-03	0.032	0.032	0.012	
	Light Crude Oil	5	10,000	0.0000	7.392E-03	0.037	0.037	0.014	
	Heavy Crude Oil	0	10,000	0.0000	1.848E-01	0.000	0.000	0.000	
Connectors	Gas/Light Liquid	96	10,000	0.0000	5.280E-04	0.051	0.051	0.019	
	Light Crude Oil	96	10,000	0.0000	5.122E-04	0.049	0.049	0.019	
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000	
Flanges	Gas/Light Liquid	10	10,000	0.0000	3.010E-04	0.003	0.003	0.001	
	Light Crude Oil	10	10,000	0.0000	1.267E-04	0.001	0.001	0.000	
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000	
Open-ended Lines	Gas/Light Liquid	0	10,000	0.0000	7.920E-04	0.000	0.000	0.000	
	Light Crude Oil	0	10,000	0.0000	7.392E-04	0.000	0.000	0.000	
	Heavy Crude Oil	0	10,000	0.0000	3.802E-04	0.000	0.000	0.000	
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.213	0.213	0.080	
Gas	VOC content (%) of TOG				100.00	Methane content (%) of TOG			37.50
Liquid	VOC content (%) of TOG				100.00	Methane content (%) of TOG			37.70

Fugitive VOC Emissions From Components
 Calculated From Component Counts and EPA ALR Emission Factors

1-174

Fugitive Emissions From Pumps P-104 / P-105 / P-106 and Associated Components (2,000 ppmv Leak)

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA-1995 ALR TOG Factor (lb/day/Component)	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	0	2,000	0.0000	7.392E-04	0.000	0.000	0.000
	Light Crude Oil	72	2,000	0.0000	7.392E-04	0.053	0.053	0.020
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	0	2,000	0.0000	1.214E-02	0.000	0.000	0.000
	Light Crude Oil	4	2,000	0.0000	1.003E-02	0.040	0.040	0.015
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	0	2,000	0.0000	2.376E-03	0.000	0.000	0.000
	Light Crude Oil	8	2,000	0.0000	3.379E-03	0.027	0.027	0.010
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000
Connectors	Gas/Light Liquid	0	2,000	0.0000	4.488E-04	0.000	0.000	0.000
	Light Crude Oil	72	2,000	0.0000	4.541E-04	0.033	0.033	0.012
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	0	2,000	0.0000	1.373E-04	0.000	0.000	0.000
	Light Crude Oil	108	2,000	0.0000	8.448E-05	0.009	0.009	0.003
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	3.538E-05	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.162	0.162	0.061
Gas	VOC content (%) of TOG				100.00	Methane content (%) of TOG		
Liquid	VOC content (%) of TOG				100.00	Methane content (%) of TOG		

Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors

1-1774

Fugitive Emissions From Pumps P-107 / P-108 / P-109 and Associated Components (2,000 ppmv Leak)

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor (lb/day*Component)	Fugitive Emissions			
						TOG (lb/day)	VOC (lb/day)	Methane (lb/day)	
Valves	Gas/Light Liquid	0	2,000	0.0000	7.392E-04	0.000	0.000	0.000	
	Light Crude Oil	72	2,000	0.0000	7.392E-04	0.053	0.053	0.020	
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000	
Pump Seals	Gas/Light Liquid	0	2,000	0.0000	1.214E-02	0.000	0.000	0.000	
	Light Crude Oil	8	2,000	0.0000	1.003E-02	0.080	0.080	0.030	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Others	Gas/Light Liquid	0	2,000	0.0000	2.376E-03	0.000	0.000	0.000	
	Light Crude Oil	8	2,000	0.0000	3.379E-03	0.027	0.027	0.010	
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000	
Connectors	Gas/Light Liquid	0	2,000	0.0000	4.488E-04	0.000	0.000	0.000	
	Light Crude Oil	72	2,000	0.0000	4.541E-04	0.033	0.033	0.012	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Flanges	Gas/Light Liquid	0	2,000	0.0000	1.373E-04	0.000	0.000	0.000	
	Light Crude Oil	108	2,000	0.0000	8.448E-05	0.009	0.009	0.003	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000	
	Light Crude Oil	0	2,000	0.0000	3.538E-05	0.000	0.000	0.000	
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000	
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.202	0.202	0.076	
Gas	VOC content (%) of TOG				100.00	Methane content (%) of TOG			37.50
Liquid	VOC content (%) of TOG				100.00	Methane content (%) of TOG			37.70

Fugitive VOC Emissions From Components
 Calculated From Component Counts and EPA ALR Emission Factors

-1175

Fugitive Emissions From Tank T-104 and Associated Components (10,000 ppmv Leak)

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor Component (lb/day)	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	12	10,000	0.0000	1.320E-03	0.016	0.016	0.006
	Light Crude Oil	24	10,000	0.0000	1.003E-03	0.024	0.024	0.009
	Heavy Crude Oil	0	10,000	0.0000	4.435E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	0	10,000	0.0000	1.848E-02	0.000	0.000	0.000
	Light Crude Oil	0	10,000	0.0000	2.693E-02	0.000	0.000	0.000
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	5	10,000	0.0000	6.336E-03	0.032	0.032	0.012
	Light Crude Oil	5	10,000	0.0000	7.392E-03	0.037	0.037	0.014
	Heavy Crude Oil	0	10,000	0.0000	1.848E-01	0.000	0.000	0.000
Connectors	Gas/Light Liquid	96	10,000	0.0000	5.280E-04	0.051	0.051	0.019
	Light Crude Oil	96	10,000	0.0000	5.122E-04	0.049	0.049	0.018
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	10	10,000	0.0000	3.010E-04	0.003	0.003	0.001
	Light Crude Oil	10	10,000	0.0000	1.267E-04	0.001	0.001	0.000
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	10,000	0.0000	7.920E-04	0.000	0.000	0.000
	Light Crude Oil	0	10,000	0.0000	7.392E-04	0.000	0.000	0.000
	Heavy Crude Oil	0	10,000	0.0000	3.802E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.213	0.213	0.080
Gas	VOC content (%) of TOG				100.00	Methane content (%) of TOG		
Liquid	VOC content (%) of TOG				100.00	Methane content (%) of TOG		

Fugitive VOC Emissions From Components
 Calculated From Component Counts and EPA ALR Emission Factors

1-175

Fugitive Emissions From Pumps P-110 / P-111 and Associated Components (2,000 ppmv Leak)

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor (lb/day*Component)	Fugitive Emissions			
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)	
Valves	Gas/Light Liquid	0	2,000	0.0000	7.392E-04	0.000	0.000	0.000	
	Light Crude Oil	48	2,000	0.0000	7.392E-04	0.035	0.035	0.013	
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000	
Pump Seals	Gas/Light Liquid	0	2,000	0.0000	1.214E-02	0.000	0.000	0.000	
	Light Crude Oil	3	2,000	0.0000	1.003E-02	0.030	0.030	0.011	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Others	Gas/Light Liquid	0	2,000	0.0000	2.376E-03	0.000	0.000	0.000	
	Light Crude Oil	5	2,000	0.0000	3.379E-03	0.017	0.017	0.006	
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000	
Connectors	Gas/Light Liquid	0	2,000	0.0000	4.488E-04	0.000	0.000	0.000	
	Light Crude Oil	240	2,000	0.0000	4.541E-04	0.109	0.109	0.041	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Flanges	Gas/Light Liquid	0	2,000	0.0000	1.373E-04	0.000	0.000	0.000	
	Light Crude Oil	72	2,000	0.0000	8.448E-05	0.006	0.006	0.002	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000	
	Light Crude Oil	0	2,000	0.0000	3.538E-05	0.000	0.000	0.000	
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000	
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.198	0.198	0.074	
Gas	VOC content (%) of TOG				100.00	Methane content (%) of TOG			37.50
Liquid	VOC content (%) of TOG				100.00	Methane content (%) of TOG			37.50

Fugitive VOC Emissions From Components
 Calculated From Component Counts and EPA ALR Emission Factors

1-176

Fugitive Emissions From Gas / Liquid Separator Vessel V-5 and Associated Components

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions			
						TOG (lb/day)	VOC (lb/day)	Methane (lb/day)	
Valves	Gas/Light Liquid	6	2,000	0.0000	7.392E-04	0.004	0.004	0.002	
	Light Crude Oil	18	2,000	0.0000	7.392E-04	0.013	0.013	0.005	
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000	
Pump Seals	Gas/Light Liquid	0	2,000	0.0000	1.214E-02	0.000	0.000	0.000	
	Light Crude Oil	0	2,000	0.0000	1.003E-02	0.000	0.000	0.000	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Others	Gas/Light Liquid	2	2,000	0.0000	2.376E-03	0.005	0.005	0.002	
	Light Crude Oil	2	2,000	0.0000	3.379E-03	0.007	0.007	0.003	
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000	
Connectors	Gas/Light Liquid	12	2,000	0.0000	4.488E-04	0.005	0.005	0.002	
	Light Crude Oil	48	2,000	0.0000	4.541E-04	0.022	0.022	0.008	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Flanges	Gas/Light Liquid	12	2,000	0.0000	1.373E-04	0.002	0.002	0.001	
	Light Crude Oil	48	2,000	0.0000	8.448E-05	0.004	0.004	0.002	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000	
	Light Crude Oil	0	2,000	0.0000	3.538E-05	0.000	0.000	0.000	
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000	
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.062	0.062	0.023	
Gas	VOC content (%) of TOG		100.00					Methane content (%) of TOG	37.50
Liquid	VOC content (%) of TOG		100.00					Methane content (%) of TOG	37.50

Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors

1-177

Fugitive Emissions From Compressor C-002 and Associated Components (2,000 ppmv Leak)

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor Component (lb/day)	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	40	2,000	0.0000	7.392E-04	0.030	0.030	0.011
	Light Crude Oil	46	2,000	0.0000	7.392E-04	0.034	0.034	0.013
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	2	2,000	0.0000	1.214E-02	0.024	0.024	0.009
	Light Crude Oil	2	2,000	0.0000	1.003E-02	0.020	0.020	0.008
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	3	2,000	0.0000	2.376E-03	0.007	0.007	0.003
	Light Crude Oil	3	2,000	0.0000	3.379E-03	0.010	0.010	0.004
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000
Connectors	Gas/Light Liquid	302	2,000	0.0000	4.488E-04	0.136	0.136	0.051
	Light Crude Oil	284	2,000	0.0000	4.541E-04	0.129	0.129	0.048
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	148	2,000	0.0000	1.373E-04	0.020	0.020	0.008
	Light Crude Oil	30	2,000	0.0000	8.448E-05	0.003	0.003	0.001
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	3.538E-05	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.2113	0.2113	0.155
Gas	VOC content (%) of TOG		100.00			Methane content (%) of TOG		
Liquid	VOC content (%) of TOG		100.00			Methane content (%) of TOG		
								37.50
								37.50

ATTACHMENT III Emissions Profiles

Permit #: S-1216-172-0	Last Updated
Facility: OCCIDENTAL OF ELK HILLS INC	02/25/2012 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	320.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	0.9
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	80.0
Q2:	0.0	0.0	0.0	0.0	80.0
Q3:	0.0	0.0	0.0	0.0	80.0
Q4:	0.0	0.0	0.0	0.0	80.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					1.0
Quarterly Offset Amounts (lb/Qtr)					
Q1:					80.0
Q2:					80.0
Q3:					80.0
Q4:					80.0

Permit #: S-1216-173-0	Last Updated
Facility: OCCIDENTAL OF ELK HILLS INC	02/25/2012 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	125.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	0.3
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	31.0
Q2:	0.0	0.0	0.0	0.0	31.0
Q3:	0.0	0.0	0.0	0.0	31.0
Q4:	0.0	0.0	0.0	0.0	32.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-1216-174-0	Last Updated
Facility: OCCIDENTAL OF ELK HILLS INC	02/25/2012 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	283.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	0.8
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	70.0
Q2:	0.0	0.0	0.0	0.0	71.0
Q3:	0.0	0.0	0.0	0.0	71.0
Q4:	0.0	0.0	0.0	0.0	71.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					1.0
Quarterly Offset Amounts (lb/Qtr)					
Q1:					70.0
Q2:					71.0
Q3:					71.0
Q4:					71.0

Permit #: S-1216-175-0	Last Updated
Facility: OCCIDENTAL OF ELK HILLS INC	02/25/2012 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	150.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	0.4
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	37.0
Q2:	0.0	0.0	0.0	0.0	37.0
Q3:	0.0	0.0	0.0	0.0	38.0
Q4:	0.0	0.0	0.0	0.0	38.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-1216-176-0	Last Updated
Facility: OCCIDENTAL OF ELK HILLS INC	03/06/2012 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	173.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	0.5
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	43.0
Q2:	0.0	0.0	0.0	0.0	43.0
Q3:	0.0	0.0	0.0	0.0	43.0
Q4:	0.0	0.0	0.0	0.0	44.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-1216-177-0	Last Updated
Facility: OCCIDENTAL OF ELK HILLS INC	02/25/2012 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	151.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	0.4
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	37.0
Q2:	0.0	0.0	0.0	0.0	38.0
Q3:	0.0	0.0	0.0	0.0	38.0
Q4:	0.0	0.0	0.0	0.0	38.0
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
Compliance Certification

San Joaquin Valley
Unified Air Pollution Control District

RECEIVED
FEB 08 2012
SJVAPCD
Southern Region

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

- SIGNIFICANT PERMIT MODIFICATION ADMINISTRATIVE AMENDMENT
 MINOR PERMIT MODIFICATION

COMPANY NAME: Occidental of Elk Hills, Inc.	FACILITY ID: S - 1216
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: Occidental of Elk Hills, Inc.	
3. Agent to the owner Shawn Kerns, General Manager	

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

- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

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

Armando H. Gonzalez
Signature of Responsible Official

2/8/2012
Date

Armando Gonzalez
Name of Responsible Official (please print)

HES Manager
Title of Responsible Official (please print)

ATTACHMENT V
HRA Summary

San Joaquin Valley Air Pollution Control District Risk Management Review

To: Richard Edgehill, AQE – Permit Services
 From: Joe Aguayo, AQS – Technical Services
 Date: March 7, 2012
 Facility Name: Occidental of Elk Hills
 Location: SW/4 S10 T30S R22E
 Kern Co. LOW
 Application #(s): S-1216-172-0 through -177-0
 Project #: S-1120347

A. RMR SUMMARY

RMR Summary			
Categories	Oilfield Equipment (Unit 172-0 through 177-0)	Project Totals	Facility Totals
Prioritization Score	>1.0	>1.0	>1.0
Acute Hazard Index	0.00	0.00	0.00
Chronic Hazard Index	0.00	0.00	0.00
Maximum Individual Cancer Risk (10^{-6})	0.0	0.0	0.0
T-BACT Required?	No		
Special Permit Conditions?	No		

Proposed Permit Conditions

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

Unit # 172-0 through 177-0

No special conditions are required.

B. RMR REPORT

I. Project Description

Technical Services received a request on February 23, 2012, to perform a Risk Management Review for a proposed installation of two (2) 6,500 bbl fixed-roof produced water tanks (units 172-0 and 173-0), One (1) 3,000 bbl and one (1) 1,500 bbl fixed-roof crude oil processing tanks (units 174-0 and 175-0), and two (2) 250 hp electrically-driven field gas compressors (units 176-0 and 177-0) that will result in fugitive VOC emissions.

II. Analysis

Technical Services performed a health risk assessment using the Toxic Fugitive Emissions from Oilfield Equipment spreadsheet. The cumulative prioritization scores were greater than 1.0, thus modeling was conducted using the AERMOD model, with the parameters outlined below and meteorological data for 2005-2009 from Bakersfield to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid.

Analysis Parameters Unit 172-0 through 177-0			
Source Type	Area	Location Type	Rural
X-Length (m)	3.048	Closest Receptor (m)	3,057.75
Y-Length (m)	3.048	Type of Receptor	Residential
Release Height (m)	3.048	Pollutant Type	VOC

Unit	lb/hr	lb/yr
172-0: 6,500 bbl produced water tank	0.042	368
173-0: 6,500 bbl produced water tank	0.009	78
174-0: 3,000 bbl crude oil tank	0.032	283
175-0: 1,500 bbl crude oil tank	0.017	150
176-0: 250 hp compressor	0.020	173
177-0: 250 hp compressor	0.017	151

III. Conclusion

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

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

IV. Attachments

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

ATTACHMENT VI
Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1216-172-0

LEGAL OWNER OR OPERATOR: OCCIDENTAL OF ELK HILLS INC
MAILING ADDRESS: 10800 STOCKDALE HIGHWAY
BAKERSFIELD, CA 93311

LOCATION: LIGHT OIL WESTERN

SECTION: SW10 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

6,500 BBL FIXED-ROOF PRODUCED WATER TANK (T-101) SERVED BY A VAPOR CONTROL SYSTEM SHARED WITH UP TO THREE TANKS, GAS/LIQUID SEPARATORS, ELECTRIC HEATER, AND WASTEWATER PUMPS (10Z TANK SETTING)

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Storage tank shall be equipped with a vapor recovery system consisting of a closed vent system that routes all VOCs from the storage tank to a field gas gathering system. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. Storage tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director APCO

DAVID WARNER, Director of Permit Services
S-1216-172-0: Mar 6 2012 2:03PM - EDGEHILR : Joint Inspection NOT Required

6. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv) for tank components and for components in piping from the tank to vapor control system truck line and 2,000 parts per million by volume (ppmv) for all other components including the tank vapor control system, separators, heater, and pumps. The ppmv readings, as methane above background, shall be taken using a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from tank and from components in piping from tank to vapor control system trunk line shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC fugitive emissions from tank vapor control system shall not exceed 0.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. VOC fugitive emissions from gas/liquid separators shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. VOC fugitive emissions from associated pumps and electric heater shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from tank components and from components in piping from the tank to vapor control system truck line calculated using (ALR) equations for a 10,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from the tank vapor control system, separators, heater, and pumps calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
13. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Permittee shall comply with applicable monitoring, inspection, maintenance, and recordkeeping, and reporting requirements of Rule 4409. [District Rule 4409] Federally Enforceable Through Title V Permit
15. Any tank gauging or sampling device on storage tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
16. Operator shall visually inspect storage tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shell and roof of the uninsulated tank for structural integrity annually. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
17. Upon detection of a liquid leak from storage tank, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
18. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 parts per million by volume (ppmv) for the tank and 2,000 parts per million by volume (ppmv) for the tank vapor control system measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

19. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
20. If a component type for storage tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
21. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
22. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
23. Prior to operating equipment under this Authority to Construct, permittee shall surrender emission reduction credits for the following quantities of emissions: VOC: 80 lb/qtr. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
24. ERC Certificate Numbers S-1776-1 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1216-173-0

LEGAL OWNER OR OPERATOR: OCCIDENTAL OF ELK HILLS INC
MAILING ADDRESS: 10800 STOCKDALE HIGHWAY
BAKERSFIELD, CA 93311

LOCATION: LIGHT OIL WESTERN

SECTION: SW10 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

6,500 BBL FIXED-ROOF PRODUCED WATER TANK (T-104) SERVED BY VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1216-172 (10Z TANK SETTING)

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Storage tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv) for tank components and for components in piping from the tank to vapor control system truck line and 2,000 parts per million by volume (ppmv) for associated pumps. The ppmv readings, as methane above background, shall be taken using a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director, APCO

DRAFT

DAVID WARNER, Director of Permit Services
S-1216-173-0 : Mar 6 2012 1:18PM - EDGEHILR : Joint Inspection NOT Required

6. VOC fugitive emissions from tank and from components in piping from tank to vapor control system trunk line shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from associated pumps shall not exceed 0.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from tank components and from components in piping from the tank to vapor control system truck line calculated using (ALR) equations for a 10,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
9. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from associated pumps calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
10. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall comply with applicable monitoring, inspection, maintenance, and recordkeeping, and reporting requirements of Rule 4409. [District Rule 4409] Federally Enforceable Through Title V Permit
12. Any tank gauging or sampling device on storage tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
13. Operator shall visually inspect storage tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shell and roof of the uninsulated tank for structural integrity annually. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
14. Upon detection of a liquid leak from storage tank, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
15. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 parts per million by volume (ppmv) for the tank and 2,000 parts per million by volume (ppmv) for the tank vapor control system measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
16. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
17. If a component type for storage tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

19. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
20. ATC shall be implemented concurrently with or subsequent to ATC S-1216-172-0. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1216-174-0

LEGAL OWNER OR OPERATOR: OCCIDENTAL OF ELK HILLS INC
MAILING ADDRESS: 10800 STOCKDALE HIGHWAY
BAKERSFIELD, CA 93311

LOCATION: LIGHT OIL WESTERN

SECTION: SW10 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

3,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK (T-102) SERVED BY VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1216-172 (10Z TANK SETTING)

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Storage tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv) for tank components and for components in piping from the tank to vapor control system truck line and 2,000 parts per million by volume (ppmv) for associated pumps. The ppmv readings, as methane above background, shall be taken using a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director APCO

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DAVID WARNER, Director of Permit Services

S-1216-174-0 : Mar 6 2012 1:18PM -- EDGEHILR : Joint Inspection NOT Required

6. VOC fugitive emissions from tank and from components in piping from tank to vapor control system trunk line shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from associated pumps shall not exceed 0.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from tank components and from components in piping from the tank to vapor control system truck line calculated using (ALR) equations for a 10,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
9. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from associated pumps calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
10. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall comply with applicable monitoring, inspection, maintenance, and recordkeeping, and reporting requirements of Rule 4409. [District Rule 4409] Federally Enforceable Through Title V Permit
12. Any tank gauging or sampling device on storage tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
13. Operator shall visually inspect storage tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shell and roof of the uninsulated tank for structural integrity annually. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
14. Upon detection of a liquid leak from storage tank, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
15. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 parts per million by volume (ppmv) for the tank and 2,000 parts per million by volume (ppmv) for the tank vapor control system measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
16. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
17. If a component type for storage tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

19. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
20. Prior to operating equipment under this Authority to Construct, permittee shall surrender emission reduction credits for the following quantities of emissions: VOC: 71 lb/qtr. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
21. ERC Certificate Numbers S-1776-1 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
22. ATC shall be implemented concurrently with or subsequent to ATC S-1216-172-0. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1216-175-0

LEGAL OWNER OR OPERATOR: OCCIDENTAL OF ELK HILLS INC
MAILING ADDRESS: 10800 STOCKDALE HIGHWAY
BAKERSFIELD, CA 93311

LOCATION: LIGHT OIL WESTERN

SECTION: SW10 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,500 BBL FIXED-ROOF CRUDE OIL TANK (T-103) SERVED BY SHARED VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1216-172 (10Z TANK SETTING)

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Storage tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv) for tank components and for components in piping from the tank to vapor control system truck line and 2,000 parts per million by volume (ppmv) for associated pumps. The ppmv readings, as methane above background, shall be taken using a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director VAPCO

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DAVID WARNER, Director of Permit Services

S-1216-175-0 : Mar 6 2012 1:18PM - EDGEHILR : Joint Inspection NOT Required

6. VOC fugitive emissions from tank and from components in piping from tank to vapor control system trunk line shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from associated pumps shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from tank components and from components in piping from the tank to vapor control system truck line calculated using (ALR) equations for a 10,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
9. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from associated pumps calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
10. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall comply with applicable monitoring, inspection, maintenance, and recordkeeping, and reporting requirements of Rule 4409. [District Rule 4409] Federally Enforceable Through Title V Permit
12. Any tank gauging or sampling device on storage tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
13. Operator shall visually inspect storage tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shell and roof of the uninsulated tank for structural integrity annually. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
14. Upon detection of a liquid leak from storage tank, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
15. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 parts per million by volume (ppmv) for the tank and 2,000 parts per million by volume (ppmv) for the tank vapor control system measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
16. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
17. If a component type for storage tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

19. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
20. ATC shall be implemented concurrently with or subsequent to ATC S-1216-172-0. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1216-176-0

LEGAL OWNER OR OPERATOR: OCCIDENTAL OF ELK HILLS INC
MAILING ADDRESS: 10800 STOCKDALE HIGHWAY
BAKERSFIELD, CA 93311

LOCATION: LIGHT OIL WESTERN

SECTION: SW10 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

250 HP ELECTRICALLY-DRIVEN FIELD GAS COMPRESSOR (C-001) AND GAS/LIQUID SEPARATOR (10Z TANK SETTING)

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 2,000 parts per million by volume (ppmv). The ppmv readings, as methane above background, shall be taken using a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director, APCO

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DAVID WARNER, Director of Permit Services
S-1216-176-0: Mar 8 2012 1:18PM - EDGEHILL : Joint Inspection NOT Required

6. VOC fugitive emissions from gas liquid separator shall not exceed 0.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from compressor shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
9. Permittee shall comply with applicable monitoring, inspection, maintenance, and recordkeeping, and reporting requirements of Rule 4409. [District Rule 4409] Federally Enforceable Through Title V Permit
10. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
11. ATC shall be implemented concurrently with or subsequent to ATC S-1216-172-0. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1216-177-0

LEGAL OWNER OR OPERATOR: OCCIDENTAL OF ELK HILLS INC
MAILING ADDRESS: 10800 STOCKDALE HIGHWAY
BAKERSFIELD, CA 93311

LOCATION: LIGHT OIL WESTERN

SECTION: SW10 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
250 HP ELECTRICALLY-DRIVEN FIELD GAS COMPRESSOR (C-002) (10Z TANK SETTING)

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 2,000 parts per million by volume (ppmv). The ppmv readings, as methane above background, shall be taken using a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director, APCO

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DAVID WARNER, Director of Permit Services

S-1216-177-0 : Mar 6 2012 1:18PM -- EDGEHLR : Joint Inspection NOT Required

6. VOC fugitive emissions from compressor shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall comply with applicable monitoring, inspection, maintenance, and recordkeeping, and reporting requirements of Rule 4409. [District Rule 4409] Federally Enforceable Through Title V Permit
9. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
10. ATC shall be implemented concurrently with or subsequent to ATC S-1216-172-0. [District Rule 2201] Federally Enforceable Through Title V Permit

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