



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



HEALTHY AIR LIVING™

JUN 26 2014

Gregory Pritchett
Chevron USA Inc
PO Box 1392
Bakersfield, CA 93302

Re: Notice of Preliminary Decision - Authority to Construct
Facility Number: C-2872
Project Number: C-1141400

Dear Mr. Pritchett:

Enclosed for your review and comment is the District's analysis of Chevron USA Inc's application for an Authority to Construct for the replacement five crude oil storage tanks with new tanks, authorization of an existing loading rack, and installation of a new flare, at the 7F Oil Cleaning Plant within the light oil production stationary source, Fresno County.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. After addressing all comments made during the 30-day public notice period, the District intends to issue the Authority to Construct. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

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

Sincerely,

Arnaud Marjollet
Director of Permit Services

AM:rue/ya

Enclosures

cc: Mike Tollstrup, CARB (w/ enclosure) via email

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
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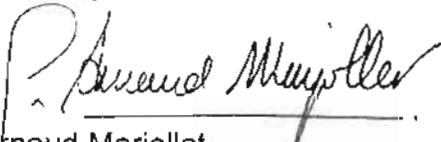
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CUSA
C-2872, 1141400

San Joaquin Valley Air Pollution Control District Authority to Construct Application Review

Two crude oil processing tanks, wastewater tank, 3 phase separator, and truck loading operation – all vented to vapor control (flare or DOGGR disposal wells)

Facility Name: Chevron USA Inc. Date: June 20, 2014
Mailing Address: P.O. Box 1392 Engineer: Richard Edgehill
Bakersfield, CA 93302 Lead Engineer: Dan Klevann
Contact Person: Lance Ericksen or Michael Buss
(661) 654-7145 (661) 654-7437
E-Mail: Lance.ericksen@chevron.com or Michael.Buss@Chevron.com
Application #(s): C-2872-64-1, 65-1, 66-1, 67-1, 68-1 and 69-0
Project #: C-1141400
Deemed Complete: May 13, 2014

I. Proposal

CUSA has requested Authorities to Construct (ATC) permit for the installation of one (up to) 1000 bbl crude oil storage tank and vapor control system including an electric compressor (C-2872-64), one (up to) 1000 bbl crude oil drain tank (C-2872-65), one horizontal 3 Phase Separator (C-2872-66), and one (up to) 1000 bbl crude oil wash tank (C-2872-67). The tanks will replace five (5) existing crude oil tanks (C-2872-1 through '-4, and '-7). An existing LACT unit will be listed on C-2872-64. An existing truck load out operation (loading rack and pumps) will be permitted separately as ATC C-2872-68-1. Additionally, in this project a flare is added as an additional disposal option for produced gas and tank vapor recovery (TVR) gas in addition to DOGGR-disposal wells.

The ATCs in this project cancel and replace ATCs issued in project C-2872, 1133078 (ATCs '-64-0 through '-68-0) which authorized the same equipment but without the flare.

The project triggers BACT, offsets and public notice.

CUSA facility C-2872 is a District Rule 2530 Major Source but does not have a Title V PTO.

ATCs C-2872-64-0 through '-68-0 and PTOs C-2872-1-1 through '-4-1 and '-7-1 (to be cancelled) are included in Attachment I.

Chevron facility C-2872 does not currently hold a Title V permit and this project itself does not exceed the Title V thresholds; therefore, District Rule 2520 is not applicable for this project.

II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (4/21/11)

- Rule 2410 Prevention of Significant Deterioration (6/16/11)
- Rule 2520 Federally Mandated Operating Permits (8/21/01)
not applicable – CUSA does not have a Title V permit for this source.
- Rule 2530 Federally Enforceable Potential to Emit (12/18/08)
- Rule 4001 New Source Performance Standards, Subparts K, Ka, Kb – Standards of Performance for Storage Vessels for Volatile Organic Liquid (04/14/99)
not applicable – Product stored prior to custody transfer.
- Rule 4102 Nuisance (12/17/92)
- Rule 4311 Flares (6/18/09)
- Rule 4409 Components at Light Crude Oil Production Facilities, Natural Gas Production Facilities, and Natural Gas Processing Facilities (4/20/2005)
- Rule 4623 Storage of Organic Liquids (5/19/05)
- Rule 4624 Organic Liquid Loading (12/17/1992)

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

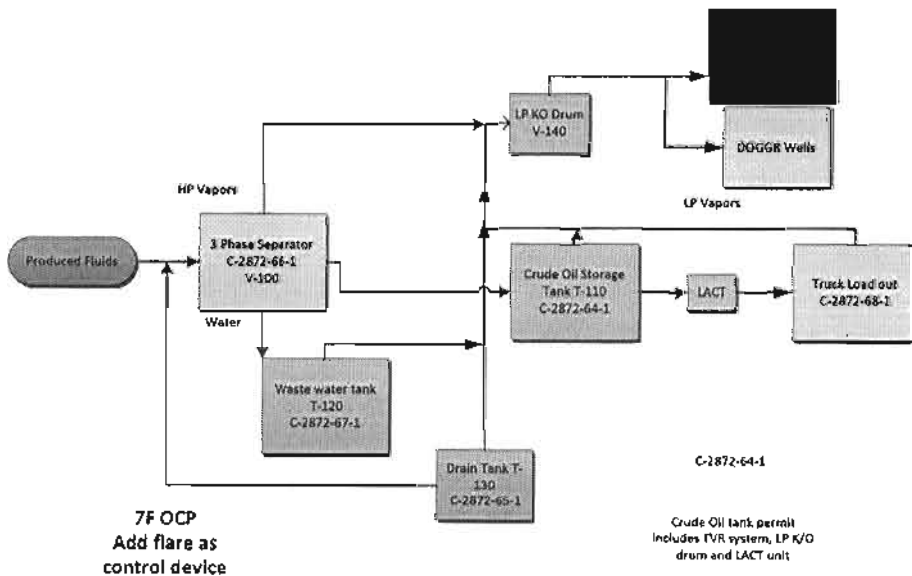
The equipment within this project is permitted to operate in CUSA's Coalinga Nose Oilfield (Section 7, Township 19S, Range 15E.) within the Fresno County Light Oil stationary source. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school; therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

A location map is included in **Attachment II**.

IV. Process Description

Stationary Source C-2872 consists of the 7F oil cleaning (OCP) plant which cleans and separates crude oil and water. The oil is dehydrated prior to sale.

Produced fluids from crude oil production wells are first processed in three phase separator V-100 (C-2872-66). The vapor space of the separator is tied to the vapor collection and control system listed on tank C-2872-64-1. Oil from the three phase separator is piped to crude oil tank T-110 (C-2872-64-1) and the water goes to waste water tank T-120 (C-2872-67-1). Drain tank T-130 (C-2872-65-1) can receive liquids from any of the vessels (including drains from separator vessel V-100 and LACT) and vapors are discharged to knock out drum V-140 listed on TVR system included with tank ATC C-2872-64-1. Any liquids collected in the drain tank will be pumped to 3 phase separator C-2872-66-1 or waste water tank C-2872-67-1. Crude oil storage tank C-2872-64-1 is vented to knock out drum V-140 which then discharges to the flare C-2872-69 or DOGGR approved disposal wells. Oil from crude oil tank T-110 (C-2872-64-1) is sent to truck load out ATC C-2872-68-1, via the LACT unit included in the tank permit, and vapors displaced during truck loading are vented to TVR system listed on tank permit C-2872-64-1 (via KO drum V-140).



Air assisted flare C-2872-69-0 will be used to incinerate TVR vapors from C-2872-64, truck load out vapors from C-2872-68, and produced gas from the three phase separator (C-2872-66) (6-3-12 email). The flare will use natural gas, propane, or LPG as pilot fuel. Upstream pressure to the flare will be < 5 psig and therefore the requirements of 40 CFR 60.18 are applicable.

V. Equipment Listing

original PTOs (Cancelled & replaced by proposed project)		Previously approved ATCs, Replacing tanks - C-1133078 (DOGGR wells only)		Proposed (DOGGR wells and flare option)	
C-2872 -1	5000 Bbl FR Clarifier tank T-300	64-0	Up to 1,000 Bbl FR Crude tank 7FT1 with TVR system	64-1	Up to 1,000 Bbl FR Crude Oil tank T-110 with LACT and TVR system serving C-2872-65, 67, 68 vented to flare or DOGGR wells
-2	5000 Bbl FR Clarifier tank T-500		< no replacement>		< no replacement>
-3	5000 Bbl FR Clarifier tank T-400	66-0	Up to 300 Bbl three phase separator 7FV1	66-1	Up to 300 Bbl three phase separator vessel V-100, includes K/O vessel V-140, vented to flare or DOGGR wells
-4	5000 Bbl FR Clarifier tank T-600	65-0	Up to 1,000 Bbl FR Crude Drain tank 7FT2	65-1	Up to 1,000 Bbl FR Drain tank T-130, vented to TVR system listed on C-2872-64
-7	3000 Bbl Wash tank T-200	67-0	Up to 1,000 Bbl FR Wash tank 7FT3	67-1	Up to 1,000 Bbl FR Waste Water Tank T-120, vented to TVR system listed on C-2872-64
	Truck Load out (No PTO)	68-0	Class 2 Truck load out	68-1	Class 2 Truck load out vented to TVR system listed on C-2872-64
-27	7-F TVR SYSTEM (This PTO was combined with PTO '-1 in project C-1121111)			69-0	Flare serving three phase separator C-2872-66, TVR listed on C-2872-64, and truck load out C-2872-68

Pre-Project Equipment Description:

- C-2872-1-2: 5000 BBL FIXED ROOF CRUDE OIL TANK (#T 300) CONNECTED TO VAPOR CONTROL SYSTEM SHARED WITH TANKS C-2872-4 and C-2872-7 (TO BE CANCELLED – includes components and equipment previously listed on C-2872-27 (see District project C-1121111 which combined the two permits))
- C-2872-2-2: 5000 BBL FIXED ROOF CRUDE OIL TANK (#T 500) CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT C-2872-4 (TO BE CANCELLED)
- C-2872-3-2: 5000 BBL FIXED ROOF CRUDE OIL TANK (#T 400) CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT C-2872-4 (TO BE CANCELLED)
- C-2872-4-2: 3000 BBL FIXED ROOF CRUDE OIL TANK (#T 600) CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT C-2872-4 (TO BE CANCELLED)
- C-2872-7-2: 3000 BBL FIXED ROOF CRUDE OIL WASH TANK (#T 200) CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT C-2872-4 (TO BE CANCELLED)

~~C-2872-27-1: 55 BHP VAPOR RECOVERY SYSTEM #67 WITH A 40 BHP "AC" ROTARY VANE COMPRESSOR AND 15 BHP CORKIN BACKUP COMPRESSOR SERVING 7 F OIL/WATER TREATMENT FACILITY (TANK# CT-1, ORT-1, PT-1, AND ST-1) (TO BE CANCELLED, equipment combined with C-2872-1 above)~~

Proposed Modifications:

C-2872-64-1: UP TO 1,000 BBL FIXED ROOF CRUDE OIL TANK T-110, INCLUDING LACT UNIT WITH LIQUID PUMPS DISCHARGING TO TRUCK LOADOUT LISTED ON PERMIT C-2872-68, WITH VAPOR SPACE VENTED TO TANK VAPOR RECOVERY (TVR) SYSTEM SHARED WITH 3 PHASE SEPARATOR C-2872-66, TANKS C-2872-65 AND C-2872-67, AND TRUCK LOADOUT C-2872-68, DISCHARGING COLLECTED VAPORS THROUGH KNOCK OUT DRUM V140 TO FLARE C-2872-69 AND/OR DOGGR-APPROVED DISPOSAL WELLS

Note: Upon implementation this ATC cancels ATC C-2872-64-0 and PTOs C-2872-1, 2, 3, 4 and 7

C-2872-65-1: UP TO 1,000 BBL FIXED ROOF CRUDE OIL DRAIN TANK T-130, VENTED TO TVR SYSTEM LISTED ON PERMIT C-2872-64

Note: This ATC shall be implemented concurrently with C-2872-64-1

C-2872-66-1: UP TO 300 BBL HORIZONTAL THREE PHASE SEPARATOR VESSEL V-100, VENTED TO TVR SYSTEM LISTED ON PERMIT C-2872-64

Note: This ATC shall be implemented concurrently with C-2872-64-1

C-2872-67-1: UP TO 1,000 BBL FIXED ROOF CRUDE OIL WASTE WATER TANK T-120, VENTED TO TVR SYSTEM LISTED ON PERMIT C-2872-64

Note: This ATC shall be implemented concurrently with C-2872-64-1

C-2872-68-1: CLASS 2 ORGANIC LIQUID TRUCK LOADING OPERATION WITH VAPOR RETURN PIPING TO TVR SYSTEM LISTED ON PERMIT C-2872-64

Note: This ATC shall be implemented concurrently with C-2872-64-1

Post Project Equipment Description:

C-2872-64-1: UP TO 1,000 BBL FIXED ROOF CRUDE OIL TANK T-110, INCLUDING LACT UNIT WITH LIQUID PUMPS DISCHARGING TO TRUCK LOADOUT LISTED ON PERMIT C-2872-68, WITH VAPOR SPACE VENTED TO TANK VAPOR RECOVERY (TVR) SYSTEM SHARED WITH THREE PHASE SEPARATOR C-2872-66, TANKS C-2872-65 AND C-2872-67, AND TRUCK LOADOUT C-2872-68, DISCHARGING

COLLECTED VAPORS THROUGH KNOCK OUT DRUM V140 TO
FLARE C-2872-69 AND/OR DOGGR-APPROVED DISPOSAL WELLS

- C-2872-65-1: UP TO 1,000 BBL FIXED ROOF CRUDE OIL DRAIN TANK T-130,
VENTED TO TVR SYSTEM LISTED ON PERMIT C-2872-64
- C-2872-66-1: UP TO 300 BBL HORIZONTAL THREE PHASE SEPARATOR VESSEL
V-100, VENTED TO TVR SYSTEM LISTED ON PERMIT C-2872-64
- C-2872-67-1: UP TO 1,000 BBL FIXED ROOF CRUDE OIL WASTE WATER TANK T-
120, VENTED TO TVR SYSTEM LISTED ON PERMIT C-2872-64
- C-2872-68-1: CLASS 2 ORGANIC LIQUID TRUCK LOADING OPERATION WITH
VAPOR RETURN PIPING TO TVR SYSTEM LISTED ON PERMIT C-
2872-64
- C-2872-69-0: 15.2 MMBTU/HR AIR ASSISTED JOHN ZINC OR ZEECO FLARE, OR
EQUIVALENT, RECEIVING VAPORS FROM TVR SYSTEM LISTED ON
PERMIT C-2872-64

As per District policy 1035 Flexibility in Equipment Descriptions in ATCs, some flexibility in the final specifications of the equipment will be allowed stated in the following ATC conditions:

The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201] N

The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters. [District Rule 2201] N

Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201] N

No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment. [District Rule 2201] N

VI. Emission Control Technology Evaluation

Vessels and Tanks C-2872-64 thru '-67

Three-phase separator C-2872-66, oilfield production tanks C-2872-64, '-65 and '-67, associated piping and vessels, along with the truck loading operation C-2872-68 in this project all have the potential to generate VOC emissions and are served by vapor control vented to either flare C-2872-69 or DOGGR approved disposal well(s).

The vapor control options are expected to reduce the inlet VOC emissions by at least 99% by weight.

Crude Oil Load Out C-2872-68

Emissions from the crude oil load out operation include fugitive VOC emissions from connections, pumps and compressor seals, and other components.

VOC emissions are controlled with a limit of no more than 5 disconnects per day, a liquid disconnect drainage volume of no more than 10 ml per disconnect, and I & M program consistent with the requirements of Rule 4409.

Flare C-2872-69

The flare is used to incinerate produced gas and TVR gas. Visible emissions from the flare are minimized by the use of an air-assist to improve mixing of air and flared gas.

Manufacturer's specifications on the flare are included in **Attachment III**.

Rule 4409

Fugitive VOCs from component leaks are minimized with the use of a leak inspection and maintenance protocol.

VII. General Calculations

A. Assumptions

- Facility will operate 24 hours per day, 7 days per week, and 52 weeks per year.
- VOC (volatile organic compounds) expected from fugitive liquid and vapor components.
- Combustion air contaminants are expected from the flare.
- Emissions for each vessel are based on fugitive liquid/vapor component counts.
- Liquid components in light crude oil service (>30° API per applicant) will be assessed emissions per District Policy SSP 2015.

C-2872-68 Crude Oil Load out

- Truck loading emissions factor (EF) calculated using a proposed maximum TVP of 4.0, temperature = 120 degrees F, molecular weight of 100 and saturation factor of 0.6 (Table 5.2-1 of AP-42 and CUSA EE).
- Load out throughput, 476.16 bbl/day (19,999 gal/day), (CUSA)
- Liquid density: 1 g/ml (conservative)
- Maximum number of disconnects (unloading and load-out): 5/day (CUSA)
- Volume of spills from disconnects, 10 mL (BACT)
- VOC content of spilled oil, 100% and all evaporates
- Vapor Control Efficiency, 99% (connected to tank vapor control system)

Flare (C-2872-69):

Flared gas flow rates

- HP gas from 3 phase separator = 25 Mscf/day
- LP gas from TVR system = 340 Mscf/day
- Total = 365 Mscf/day, 15.21 MMBtu/hr, 365 MMBtu/day
- Heating value of produced/TVR gas flared = 1,000 Btu/scf
- Pilot emissions less than 2 lbs/day (application EE calculations). Therefore, pursuant to District FYI- 310 pilot emissions are assumed to be insignificant for NSR consideration.

B. Emission Factors

Fugitive components:

Emissions factors, based on EPA Publication 453/R-95-017, *Protocol for Equipment Leak Emission Estimate*, Table 2-4, Oil and Gas Production Operations Average Emissions Factors, were used to calculate fugitive emissions from the separator and tanks. See **Attachment IV** for emission calculation spreadsheets.

Flare:

NOx, PM10 (non BACT), CO, and VOC emissions factors are from District FYI-83 "Use of AP-42 Section 13.5 Emission Factors for Industrial Flares".

Sulfur emissions:

Flared gas maximum H₂S content is 30.38 ppmv (equivalent to 1.8 grains S/100 scf, 0.00513 lb-SO₂/MMBtu)*

$$*(30.38 \text{ scf H}_2\text{S/MMscf gas}) \times (\text{lb-mole H}_2\text{S}/379 \text{ scf H}_2\text{S}) \times (64 \text{ lb-SO}_2/\text{lb-mole H}_2\text{S}) \times (\text{scf}/1000 \text{ Btu})$$

$$= 0.00513 \text{ lb-SO}_x/\text{MMBtu}$$

Flare Emission Factors (EF) in lb/MMBtu					
Gas type	NO _x	SO _x	PM ₁₀	CO	VOC
TVR gas	0.068	0.00513	0.026	0.370	0.063

Truck Loading Emissions factor – Attachment V:

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

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

- Where LL = loading loss, pounds per 10³ gallons of liquid loaded
 S = a saturation factor. 0.6 (submerged loading), 1.45 (splash loading)
 P = true vapor pressure of liquid loaded, 4.0 psia
 T = temperature of liquid loaded, 120 °F, 580 °R
 M = molecular weight of vapors, 100 lb/lb-mole
 eff = overall vapor capture and control efficiency, 99 %

$$LL = (12.46) \times (0.6) \times (4.0) \times (100) \times (1/580) \times (1-.99) = 0.0516 \text{ lb-VOC/1000 gallons loaded.}$$

(GHG) emissions factors (District Policy 2015)

CO₂ 53.06 kg/MMBtu (HHV) natural gas (116.7 lb/MMBtu)
 CH₄ 0.005 kg/MMBtu (HHV) natural gas (0.011 lb/MMBtu)
 N₂O 0.0001 kg/MMBtu (HHV) natural gas (0.00022 lb/MMBtu)
 GWP for CH₄ = 21 lb-CO₂e per lb-CH₄
 GWP for N₂O = 296 lb-CO₂e per lb-N₂O

C. Calculations

1. Pre-Project Potential to Emit (PE1)

PE1 - Summary of Daily Emissions					
	NO ₂	SO ₂	PM ₁₀	CO	VOC
C-2872-1-1	0	0	0	0	7.6
C-2872-1-1 (LACT)	0	0	0	0	23.2
Total C-2872-1-1	0	0	0	0	30.8
C-2872-2-1	0	0	0	0	6.9
C-2872-3-1	0	0	0	0	12.0
C-2872-4-1	0	0	0	0	4.9
C-2872-7-1	0	0	0	0	7.3

PE1* - Summary of Annual Emissions					
	NO ₂	SO ₂	PM ₁₀	CO	VOC
C-2872-1-1	0	0	0	0	7.6 x 365 = 2,774
C-2872-1-1 (LACT)	0	0	0	0	23.2 x 365 ** = 8,468
Total C-2872-1-1	0	0	0	0	11,242
C-2872-2-1	0	0	0	0	6.9 x 365 = 2,519
C-2872-3-1	0	0	0	0	12.0 x 365 = 4,380
C-2872-4-1	0	0	0	0	4.9 x 365 = 1,789
C-2872-7-1	0	0	0		7.3 x 365 = 2,665

*DEL listed on current PTO x 365 days/yr

**LACT Unit emissions calculated in the project Attachment IV

C-2872-64 through '67

The permit units are new and therefore PE1 = 0 for NO_x, SO_x, PM₁₀, CO, and VOCs.

2. Post Project Potential to Emit (PE2)

C-2872-64 through '67

Post-project component counts and detailed spreadsheet calculations for each storage vessel are included in **Attachment IV**. Crude oil load out emissions are calculated according to the methodology in AP-42 (**Attachment V**). The annual PE2 is the daily PE2 multiplied by 365 days/yr.

C-2872-68 (Truck Load out Emissions)

Load out Emissions

19,999 gal/day x 0.0516 lb VOC/1000 gallons = 1.0 lb VOC/day, 365 lb/yr

Disconnect Emissions

(10 ml/leak)(1.0 g/mL)(lb/454 g)(5/day) = 0.1 lb/day

(10 ml/leak)(1.0 g/mL)(lb/454 g)(5/day)(365 days/yr) = 40 lb/yr

C-2872-69 Flare – combustion emissions:

C-2872-69-0, Daily Flare Incineration of WG Post-Proj Potential to Emit (PE2)						
Pollutant	Emission Factors		Heat input		Daily PE2	
NO _x	0.068 (lb-NO _x /MMBtu)	x	365 (MMBtu/day)	=	24.8	(lb-NO _x /day)
SO _x	0.00513 (lb-SO _x /MMBtu)	x	365 (MMBtu/day)	=	1.87	(lb-SO _x /day)
PM ₁₀	0.026 (lb-PM ₁₀ /MMBtu)	x	365 (MMBtu/day)	=	9.5	(lb-PM ₁₀ /day)
CO	0.370 (lb-CO/MMBtu)	x	365 (MMBtu/day)	=	135.1	(lb-CO/day)
VOC	0.063 (lb-VOC/MMBtu)	x	365 (MMBtu/day)	=	23.0	(lb-VOC/day)

Annual Pre-Project Potential to Emit (PE2)						
Pollutant	Emission Factors		Annual Max Heat input		Annual PE2	
NO _x	0.068 (lb-NO _x /MMBtu)	x	133.225 (billion Btu/year)	=	9,059	(lb-NO _x /year)
SO _x	0.00513 (lb-SO _x /MMBtu)	x	133.225 (billion Btu/year)	=	683	(lb-SO _x /year)
PM ₁₀	0.026 (lb-PM ₁₀ /MMBtu)	x	133.225 (billion Btu/year)	=	3,464	(lb-PM ₁₀ /year)
CO	0.370 (lb-CO/MMBtu)	x	133.225 (billion Btu/year)	=	49,293	(lb-CO/year)
VOC	0.063 (lb-VOC/MMBtu)	x	133.225 (billion Btu/year)	=	8,393	(lb-VOC/year)

The PE2 is summarized in the table below:

PE2 - Summary of Daily Emissions					
	NO ₂	SO ₂	PM ₁₀	CO	VOC
C-2872-64-1, Crude oil tank T-110 w LACT and TVR	0	0	0	0	30.8
C-2872-65-1, Crude oil drain tank T-130	0	0	0	0	4.9
C-2872-66-1, 3 phase separator V-100	0	0	0	0	12.0
C-2872-67-1, Waste water tank T-120	0	0	0	0	7.3
C-2872-68-1, Class 2 truck loading	0	0	0	0	1.0 + 0.1 = 1.1
C-2872-69-0, Flare - Produced/TVR gas	24.8	1.9	9.5	135.1	23.0
Total daily PE2	24.8	1.9	9.5	135.1	79.0

PE2 - Summary of Annual Emissions					
	NO ₂	SO ₂	PM ₁₀	CO	VOC
C-2872-64-1, Crude tank T-110 w LACT & TVR	0	0	0	0	11,242
C-2872-65-1, Crude oil drain tank T-130	0	0	0	0	1,789
C-2872-66-1, 3 phase separator V-100	0	0	0	0	4,380
C-2872-67-1, Waste water tank T-120	0	0	0	0	2,665
C-2872-68-1, Class 2 truck loading (1.0 + 0.1) = 1.1 x 365 = 402	0	0	0	0	365 + 40 = 405
C-2872-69-0, Flare - Produced/TVR gas	9,059	683	3,464	49,293	8,393
Total annual PE2	9,059	683	3,464	49,293	28,874

Greenhouse gas emissions (District Policy 2015)

Hourly Emissions

CO₂ Emissions = 15.21 MMBtu/hr x 116.7 lb/MMBtu = 1,775.0 lb-CO₂e/hour
 CH₄ Emissions = 367.64 MMBtu/hr x 0.011 lb/MMBtu x 21 lb-CO₂e per lb-CH₄
 = 3.5 lb-CO₂e/hr
 N₂O Emissions = 367.64 Btu/hr x 0.00022 lb/Btu x 296 lb-CO₂e per lb-N₂O
 = 1.0 lb-CO₂e/hr
 Total = 1,775.0 + 3.5 + 1.0 = 1,779.5 lb-CO₂e/hr

Daily

CO₂ Emissions = 365 MMBtu/day x 116.7 lb/MMBtu = 42,595.5 lb-CO₂e/day
 CH₄ Emissions = 365 MMBtu/day x 0.011 lb/MMBtu x 21 lb-CO₂e per lb-CH₄
 = 84.3 lb-CO₂e/day

N_2O Emissions = 365 Btu/day x 0.00022 lb/Btu x 296 lb-CO₂e per lb-N₂O
= 23.8 lb-CO₂e/hr
Daily Total = 42,703.6 lb-CO₂e/day

Annual

Annual = daily * 365 days/year

Annual Total = 42,703.6 * 365 = 15,586,808 lb-CO₂e/yr

Short tons = 15,586,808 lb-CO₂e/yr + 2,000 lb/ton
= 7,793.40 short tons-CO₂e/yr

Metric tons = 7,793.40 Short tons * 0.9072 Metric ton/short ton
= 7,070.18 Metric tons-CO₂e/year

Emissions profiles are included in Attachment VI.

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

Pursuant to Section 4.9 of District Rule 2201, the Pre-Project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site. Facility C-2872 has no ERCs.

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

SSPE1 (lb/year)*					
Permit Unit/ERC	NO _x	SO _x	PM ₁₀	CO	VOC
C-2872-1-1	0	0	0	0	7.6 x 365 = 2,774
C-2872-1-1 (LACT)	0	0	0	0	23.2 x 365 ** = 8,468
Total C-2872-1-1	0	0	0	0	11,242
C-2872-2-1	0	0	0	0	6.9 x 365 = 2,519
C-2872-3-1	0	0	0	0	12.0 x 365 = 4,380
C-2872-4-1	0	0	0	0	4.9 x 365 = 1,789
C-2872-7-1	0	0	0		7.3 x 365 = 2,665
SSPE1	0	0	0	0	22,595

*DEL listed on current PTO x 365 days/yr

**LACT Unit emissions calculated in the project Attachment IV

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

Pursuant to Section 4.10 of District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site. Facility C-2872 has no ERCs.

The Post-Project Stationary Source Potential to Emit (SSPE2) is summarized below:

Post-Project Stationary Source Potential to Emit [SSPE2] (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
ATC C-2872-64-1	0	0	0	0	11,242
ATC C-2872-65-1	0	0	0	0	1,789
ATC C-2872-66-1	0	0	0	0	4,380
ATC C-2872-67-1	0	0	0	0	2,665
ATC C-2872-68-1	0	0	0	0	405
ATC C-2872-69-0	9,059	683	3,464	49,293	8,393
Post-Project SSPE2	9,059	683	3,464	49,293	28,874

5. Major Source Determination

Rule 2201 Major Source Determination:

Pursuant to District Rule 2201, a Major Source is a stationary source with post-project emissions or a Post Project Stationary Source Potential to Emit (SSPE2), equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status the following shall not be included:

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

Major source determination is shown in the following table:

Rule 2201 Major Source Determination (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE1	0	0	0	0	22,595
SSPE1 less fugitives	0	0	0	0	0
SSPE2	9,059	683	3,464	49,293	28,874
SSPE2 less fugitives	9,059	683	3,464	49,293	8,393
Major Source Threshold	20,000	140,000	140,000	200,000	20,000
Major Source?	No	No	No	No	No

As seen in the table above, the facility is not a Rule 2201 Major Source and is not becoming a Major Source as a result of this project.

Rule 2410 Major Source Determination:

The facility evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). Therefore the following PSD Major Source thresholds are applicable. Fugitive emissions are not included.

PSD Major Source Determination (tons/year)							
	NO ₂	VOC	SO ₂	CO	PM	PM10	CO _{2e}
Estimated Facility PE before Project Increase*	0	11.3	0	0	0	0	0
PSD Major Source Thresholds	250	250	250	250	250	250	100,000
PSD Major Source ? (Y/N)	N	N	N	N	N	N	N

As shown above, the facility is not an existing major source for PSD for any one pollutant. Therefore the facility is not an existing major source for PSD.

6. Baseline Emissions (BE)

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

Pursuant to Section 3.7 of District Rule 2201, BE = Pre-project Potential to Emit for:

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

Otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to Section 3.22 of District Rule 2201.

Baseline emissions for the new equipment is = 0.

7. SB 288 Major Modification

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

Since this facility is not a major source for any of the pollutants addressed in this project, this project does not constitute an SB 288 major modification.

8. Federal Major Modification

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

Since this facility is not a Major Source for any pollutants, this project does not constitute a Federal Major Modification. Additionally, since the facility is not a major source for PM₁₀ (140,000 lb/year), it is not a major source for PM_{2.5} (200,000 lb/year).

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

Rule 2410 applies to pollutants for which the District is in attainment or for unclassified, pollutants. The pollutants addressed in the PSD applicability determination are listed as follows:

- NO₂ (as a primary pollutant)
- SO₂ (as a primary pollutant)
- CO
- PM
- PM₁₀
- Greenhouse gases (GHG): CO₂, N₂O, CH₄, HFCs, PFCs, and SF₆

The first step of this PSD evaluation consists of determining whether the facility is an existing PSD Major Source or not (See Section VII.C.5 of this document).

This facility is NOT an existing PSD Major Source.

The second step of the PSD evaluation is to determine if the project, by itself, would result in a PSD significant increase.

I. Potential to Emit for New or Modified Emission Units vs PSD Major Source Thresholds

As a screening tool, the project potential to emit from all new and modified units is compared to the PSD major source threshold, and if total project potential to emit from all new and modified units is < this threshold, no further analysis will be needed.

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). Therefore the following PSD Major Source thresholds are applicable.

PSD Major Source Determination: Potential to Emit (tons/year)							
	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀	CO _{2e}
Total PE from New & Modified Units*	4.6	14.4	0.3	24.6	1.7	1.7	7,793*
PSD Major Source threshold	250	250	250	250	250	250	100,000
New PSD Major Source?	N	N	N	N	N	N	N

*flare '89 only

As demonstrated in the table above, the project potential to emit, by itself, does not exceed one or more of the PSD major source thresholds. Therefore Rule 2410 is not applicable and no further discussion is required.

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. The permit units are new and therefore QNEC = PE2/4.

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless exempted pursuant to Section 4.2, BACT shall be required for the following actions:*

- a. Any new emissions unit with a potential to emit exceeding two pounds per day,
- b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,

- c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
- d. Any new or modified emissions unit, in a stationary source project, which results in an SB288 Major Modification or a Federal Major Mod, as defined by the rule.

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

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

The proposed vessels C-2872-64-1 through '67-1 have VOC emissions exceeding 2 lb/day and BACT is triggered. Emissions from flare C-2872-69 exceed 2 lb/day for NOx, PM10, CO, and VOC. BACT is not triggered for CO for the flare as the SSPE is less than 200,000 lb/yr.

b. Relocation of emissions units – PE > 2 lb/day

There are no emissions units being relocated from one stationary source to another; therefore BACT is not triggered.

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

There are no emissions units being modified with this project proposal.

d. SB 288/Federal Major Modification

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

2. BACT Guidelines – Attachment VII

BACT Guideline 7.3.1 applies to the tanks and three phase separator vessel. [Petroleum and Petrochemical Production - Fixed Roof Organic Liquid Storage or Processing Tank, < 5,000 bbl Tank capacity]

BACT Guideline 1.4.2 applies to the flare. [Waste Gas Flare – Incinerating Produced Gas].

3. Top-Down BACT Analysis - Attachment VIII

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

C-2872-64 through '67 (tanks and separator vessel):

Pursuant to the attached Top-Down BACT Analysis, BACT for VOC for unit C-2872-64 through '67 has been satisfied with the following:

VOC: 99% control, inspection and maintenance program; reinjection of uncondensed vapors to formation or disposal in flare

C-2872-69-0 (Flare)

Pursuant to the attached Top-Down BACT Analysis, BACT has been satisfied with the following:

NO_x and VOCs: Air assisted flare (steam is not available)
PM₁₀: Air assisted flare, Pilot light fired on LPG or natural gas

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 is compared to the offset thresholds in the following table.

Offset Determination (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE2	9,059	683	3,464	49,293	28,874
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	No	No	No	No	Yes

2. Quantity of Offsets Required

As seen above, the facility is an existing Major Source for all pollutants and the SSPE2 is greater than the offset threshold; therefore offset calculations will be required for this project.

Per Sections 4.7.1 and 4.7.3, the quantity of offsets in pounds per year is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets required (lb/year) = $(\Sigma[PE2 - BE] + ICCE) \times DOR$, for all new or modified emissions units in the project,

Where,

- PE2 = Post Project Potential to Emit, (lb/year)
- BE = Baseline Emissions, (lb/year)
- ICCE = Increase in Cargo Carrier Emissions, (lb/year)
- DOR = Distance Offset Ratio, determined pursuant to Section 4.8

BE = Pre-project Potential to Emit for:

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

Otherwise,

BE = Historic Actual Emissions (HAE)

As calculated in Section VII.C.6 above, the Baseline Emissions (BE) from this unit are equal to the Pre-Project Potential to Emit (PE1) since the units are new. In addition PE1 = 0 lbs/day for all pollutants.

Also, there are no increases in cargo carrier emissions; therefore offsets can be determined as follows:

$$\text{Offsets required (lb/year)} = ([\sum \text{PE2} - \text{BE}] + \text{ICCE}) \times \text{DOR}$$

$$\text{ICCE} = 0 \text{ lb/year}$$

$$\text{Offsets required (lb/year)} = (\text{PE2} - 0) \times \text{DOR}$$

As stated above, BE = PE1 for every permit unit in this project. Also, there are no increases in cargo carrier emissions; therefore, ICCE = 0 for all units.

New Unit, PE2	Deleted Unit, PE1
'-64, 11,242	'-1, 11,242
'-65, 1,789	'-4, 1,789
'-66, 4,380	'-3, 4,380
'-67, 2,665	'-7, 2,665
'-68, 405	
'-69, 8,393	
	'-2, 2,519
$\sum \text{PE2} = 28,874$	$\sum \text{PE1} = 22,595$

$$\begin{aligned} \text{Offsets required (lb/year)} &= ([\sum \text{PE2} - \text{BE}] \times \text{DOR}) \\ &= 28,874 - 22,595 \\ &= 6,279 \text{ lb/yr} \end{aligned}$$

Note that there are no offsets required for units '-64 through '-67 with deletion of tanks '-1, '-4, '-3, and '-7.

To offset emissions from '-68 (loading rack) and '-69 (flare) applicant has proposed to use ERC certificate S-3737-1 with reductions occurring greater than 15 miles from the proposed equipment. Therefore,

C-2872-68

$$\begin{aligned} \text{Offsets required (lb/year)} &= 405 * 1.5 \\ &= 608 \text{ lb-VOC/year} \end{aligned}$$

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

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
152	152	152	152

C-2872-69

$$\begin{aligned} \text{Offsets required (lb/year)} &= (8,393 - 2,519^*) * 1.5 \\ &= 8,811 \text{ lb-VOC/year} \end{aligned}$$

*netted with removal of '-2

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

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
2,203	2,203	2,203	2,203

The above amounts from ERC certificate S-3737-1 have been reserved at 2,203 + 152 = 2,355 lb/qlr for the project.

Proposed Rule 2201 (offset) Conditions:

S-2872-68

{GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter – 152 lb, 2nd quarter – 152 lb, 3rd quarter – 152 lb, and fourth quarter – 152 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]

ERC Certificate Number S-3737-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

S-2872-69

{GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter – 2,203 lb, 2nd quarter – 2,203 lb, 3rd quarter – 2,203 lb, and fourth quarter – 2,203 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]

ERC Certificate Number S-3737-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

C. Public Notification

1. Applicability

Public noticing is required for:

- a. New Major Sources, Federal Major Modifications, and SB288 Major Modifications,
- b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- c. Any project which results in the offset thresholds being surpassed, and/or
- d. Any project with an SSiPE of greater than 20,000 lb/year for any pollutant.

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

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

As demonstrated in VII.C.7, this project does not constitute a 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 Potential to Emit greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. As seen in Section VII.C.2 above, this project does include a new flare which has daily emissions greater than 100 lb/day for CO; therefore public noticing for PE > 100 lb/day purposes is required.

c. Offset Threshold

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

Offset Threshold				
Pollutant	SSPE1 (lb/yr)	SSPE2 (lb/yr)	Offset Threshold	Public Notice Required?
NO _x	0	9,059	20,000 lb/yr	No
SO _x	0	683	54,750 lb/yr	No
PM ₁₀	0	3,464	29,200 lb/yr	No
CO	0	49,923	200,000 lb/yr	No
VOC	22,595	28,874	20,000 lb/yr	No, Project increases did not cause facility to pass through the offset threshold

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

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a Stationary Source Increase in Permitted Emissions (SSIPE) > 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE is calculated as the Post Project Stationary Source Potential to Emit (SSPE2) minus the Pre-Project Stationary Source Potential to Emit (SSPE1), i.e. $SSIPE = SSPE2 - SSPE1$. The values for SSPE2 and SSPE1 are calculated according to Rule 2201, Sections 4.9 and 4.10, respectively. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table:

Stationary Source Increase in Permitted Emissions [SSIPE] – Public Notice					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO _x	9,059	0	9,059	20,000 lb/year	No
SO _x	683	0	683	20,000 lb/year	No
PM ₁₀	3,464	0	3,464	20,000 lb/year	No
CO	49,923	0	49,923	20,000 lb/year	Yes
VOC	28,874	22,595	6,279	20,000 lb/year	No

As demonstrated above, the SSIPE for CO is greater than 20,000 lb/year; therefore public noticing for SSIPE purposes is required.

2. Public Notice Action

As discussed above, this project will result in emissions, for CO, which subject the project to the noticing requirements listed above. Therefore, public notice will be required for this project.

D. Daily Emission Limits (DELs)

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

C-2872-64-1 (Crude Oil tank, including LACT, with TVR system):

VOC fugitive emissions from the components in gas and liquid service for the storage tank shall not exceed 7.6 lb/day. [District Rule 2201]

VOC fugitive emissions from the components in gas and liquid service for the vapor control system and LACT shall not exceed 23.2 lb/day. [District Rule 2201]

C-2872-65-1 (Drain tank):

VOC fugitive emissions from the components in gas and liquid service for the storage tank shall not exceed 4.9 lb/day. [District Rule 2201]

C-2872-66-1 (Three Phase Separator):

VOC fugitive emissions from the components in gas and liquid service for the vessel shall not exceed 12.0 lb/day. [District Rule 2201]

C-2872-67-1 (Waste Water Tank):

VOC fugitive emissions from the components in gas and liquid service for the tank shall not exceed 7.3 lb/day. [District Rule 2201]

C-2872-68-1 (Class 1 Organic Liquid Truck Loading Operation):

Total product loaded into trucks via truck loading rack shall not exceed 19,999 gallons per day. [District Rules 2201 and 4624]

During truck loading, displaced vapors shall be vented to the TVR system listed on tank permit C-2872-A. [District Rule 4624, 5.1.2.1 and 6.2.1.3]

Controlled VOC emissions from truck loading operation shall not exceed 0.0516 lb-VOC/1000 gallons loaded. [District Rules 2201 and 4624]

Total number of disconnects shall not exceed 5 per day. [District Rule 2201]

During hose disconnects the maximum liquid spillage for liquids shall not exceed 10 milliliters/disconnect based on an average from 3 consecutive disconnects. [District Rule 2201 and 4624]

C-2872-69-0 (Flare):

Emissions rates from the flare shall not exceed any of the following limits: 0.068 lb-NOx/MMBtu, 0.0051 lb-SO_x/MMBtu, 0.026 lb-PM₁₀/MMBtu, 0.370 lb-CO/MMBtu, or 0.063 lb-VOC/MMBtu. [District Rule 2201]

The pilot flame for the flare shall only be fired on natural gas, LPG, or propane. [District Rule 2201]
Heat input to the flare shall not exceed 365 MMBtu in any one day nor 133,225 MMBtu per calendar year. [District Rule 2201]

Sulfur content of gas flared shall not exceed 1.8 grain-S/100 scf. [District Rules 2201 and 4801]
A flame shall be present at all times when combustible gases are vented through this flare. [District Rules 2201 and 4311, 5.2]

Flare shall be equipped with an operating flow-sensing ignition system, an operating heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent operating device capable of continuously detecting at least one pilot flame or the flare flame is present. [District Rule 4311] N

C-2872-64, '-65, '-66 & '-67:

Permittee shall maintain accurate component count for tank according to EPA's "Protocol for Equipment Leak Emission Estimate," Table 2-4, Oil and Gas Production Operations Average Emission Factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201]

E. Compliance Assurance

1. Source Testing

District Policy APR 1705 states "certain types of equipment or operations do to lend themselves to source testing. Large sources of fugitive emissions without a stack are an example of such sources.

CUSA has proposed generally accepted emission factors for the flare. All the other emissions associated with this project are fugitive VOC. Therefore, no source testing will be required to demonstrate compliance.

2. Monitoring

Vessels and tanks fugitive VOC emissions:

All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623]

Flare fuel gas sulfur content

Sulfur content and higher heating value of the flared gas shall be tested within 60 days of startup. [District Rule 2201]

The sulfur content and higher heating value of the flared gas shall be tested at least annually. [District Rule 2201]

The following test methods shall be used: Hydrogen sulfide content of produced/TVR gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method 4084-94, or

ASTM Method D-4810-88. If monitored using continuous analyzers not employing gas chromatography, the total sulfur content shall be determined by using EPA Method D4468-85. Fuel gas hhv shall be determined using ASTM D1826 or D1945 in conjunction with ASTM D3588. Applicant may use other test method(s) with prior written approval from the APCO. [District Rules 2201 and 4311, 6.3.4]

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset; public notification and daily emission limit requirements of Rule 2201. The following conditions will appear on all the ATC's in this project:

C-2872-64 through '67 (Separator and tanks)

Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Publication 453/R-95-017 Protocol for Equipment Leak Emission Estimates Table 2-4 Oil and Gas Production Operations Average Emission Factors (kg/hr/source). Permittee shall update such records when new components are installed. [District Rule 2201]

The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201]

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]

The permittee shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2201 and 4623] N

C-2872-68 (Truck loading)

The operator shall maintain records of truck load out daily liquid throughput and number of disconnects. Records shall be retained for a minimum of five years and made readily available during normal business hours and submitted upon request to the APCO, CARB, or EPA. [District Rule 4624] N

C-2872-69 (Flare)

The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2201]

Permittee shall keep accurate records of (1) daily, and annual volume (scf) of gas flared; (2) flare gas sulfur content test results; and (3) flare gas higher heating value test results. [District Rules 2201 and 4311]

Measured higher heating value and volume (scf) of gas flared shall be used to determine compliance with heat input limits. [District Rule 2201]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

An AAQA shall be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The District's Technical Services Division conducted the required analysis. Refer to **Attachment IX** of this document for the AAQA summary sheet.

The proposed location is in an attainment area for NO_x, CO, and SO_x. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for NO_x, CO, or SO_x.

The proposed location is in a non-attainment area for the state's PM₁₀ as well as federal and state PM_{2.5} thresholds. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for PM₁₀ and PM_{2.5}.

Rule 2530 Federally Enforceable Potential to Emit

The purpose of this rule is to restrict the emissions of a stationary source so that the source may elect to be exempt from the requirements of Rule 2520. Pursuant to Rule 2530, since this facility has elected exemption from the requirements of Rule 2520 by ensuring actual emissions from the stationary source in every 12-month periods to not exceed the following: ½ the major source thresholds for NO_x, VOCs, CO, and PM₁₀; 50 tons per year SO₂; 5 tons per year of a single HAP; 12.5 tons per year of any combination of HAPs; 50 percent of any lesser threshold for a single HAP as the EPA may establish by rule; and 50 percent of the major source threshold for any other regulated air pollutant not listed in Rule 2530.

Rule 4101 Visible Emissions

Rule 4101 states that no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). The flare is equipped with air assist incinerates produced gas. Propane or LPG will be used for pilot fuel. Visible emissions are not expected to exceed Ringelmann 1 or 20% opacity.

The following condition will be included on the flare ATC C-2872-69-0:

Flare air-assist blower shall be maintained and operated for smokeless combustion, i.e. no visible emissions in excess of 5% opacity or 1/4 Ringelmann except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [District Rules 2201, 4001, and 4311, CFR 60.18 (c)(1)] N

Rule 4102 Nuisance

Section 4.0 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations provided the equipment is well maintained. Therefore, compliance with this rule is expected.

The following nuisance prohibition condition is included on the '0-0 PTO:

{98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

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 IX**), 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..
C-2872-64 through '-68	0.89 per million	No
C-2872-69	0.241 per million	No

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

Units 69-0:

1. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]

Rule 4311 Flares

Section 5.1 states that flares that are permitted to operate only during an emergency are not subject to the requirements of Sections 5.6 and 5.7. Section 5.6 states that open flares with flare gas pressure less than 5 psig shall comply with 40 CFR 60.18. Section 5.7 lists requirement for ground level enclosed flares. The flare is not an emergency flare and operates with a flare gas pressure less than 5 psig and so is subject to Section 5.6. Note Rule 4311 defines enclosed flares as follows:

"a flare composed of multiple gas burners that are grouped in an enclosure, and are staged to operate at a wide range of flow rates"

The subject flare is not enclosed. Section 5.7 is not applicable.

Section 5.2 The flame shall be present at all times when combustible gases are vented through the flare.

Section 5.3 The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. The flare is equipped with a continuous propane pilot and not an automatic ignition system.

Section 5.4: Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an alternative equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. The following condition is included on the ATC:

Flare shall be equipped with an operating flow-sensing ignition system, an operating heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent operating device capable of continuously detecting at least one pilot flame or the flare flame is present. (District Rule 4311) N

Section 5.5 Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. This section is not applicable as the flare has a continuous pilot.

Section 5.6 Open flares (air-assisted, steam-assisted, or non-assisted) in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the provisions of 40 CFR 60.18. The requirements of this section shall not apply to Coanda effect flares.

The flare is not an emergency flare and operates with a flare gas pressure less than 5 psig and therefore is subject to Section 5.6.

Operational Standards Subpart CFR 40 Subpart 60.18

Per 40 CFR 60.112b(a)(3)(ii) and 40 CFR 60.113b(d), the flare will be required to meet the standards contained in 40 CFR 60.18, as this flare is air assisted and the flare gas pressure may be less than 5 psig.

1. 60.18 (c)(1): Flare shall be designed for and operated with no visible emissions as determined by EPA Method 22, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Visible emissions testing will be required by ATC condition.

2. 60.18 (c)(2): Flare shall be operated with a flame present at all times. Presence of a flame shall be monitored using a thermocouple or equivalent device to detect the presence of a flame. The flare is equipped with a pilot flame monitoring device.

The following condition included on the ATC requires a continuous pilot flame and smokeless combustion:

Flare outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare. The pilot need not be present when the flare is isolated for required flare maintenance. [40 CFR 60.18(c)(2), District Rule 4311, 5.3] N

Flare air-assist blower shall be maintained and operated for smokeless combustion, i.e. no visible emissions in excess of 5% opacity or 1/4 Ringelmann except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [District Rules 2201, 4001, and 4311] N

(650) Demonstration of compliance with the visible emissions limit of this permit shall be conducted at least annually, using EPA Method 22. The observation period shall be 2 hours. [40 CFR 60.18(f)(1)] N

1. 60.18 (c)(3)(ii): Net heating value of the gas being combusted shall be 300 Btu/scf or greater for air-assisted flares.

2. 60.18 (c)(5): Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, V_{max} , which shall be determined as follows:

$$V_{max} = 8.706 + 0.7084 (HT)$$

Where:

$$V_{max} = \text{Maximum permitted velocity (m/s)}$$

$$HT = \text{Net heating value (MJ/scm)}$$

The following conditions are included on the ATC:

Flares shall only be used with the net heating value of the gas being combusted being 300 Btu/scf or greater if the flare is air-assisted or steam-assisted. [40 CFR 60.18 (c)(3)] N

The net heating value of the gas being combusted in a flare shall be calculated annually, pursuant to 40 CFR 60.18(f)(3) and using EPA Method 18, ASTM D1946, and ASTM D2382. [40 CFR 60.18 (f)(3-6)] N

Air-assisted flares shall be operated with an exit velocity less than V_{max} , as determined by the equation specified in paragraph 40 CFR 60.18 (f)(6). [40 CFR 60.18 (c)(5)] N

The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [40 CFR 60.18 (f)(4)] N

1. 60.18 (e): This section requires that the flare be operational when emissions may be vented to the flare. The presence of a continuous pilot flame will ensure that the flare is operational.

The following condition is included on the ATC:

Flares shall be operated with a flame present at all times, and kept in operation when emissions may be vented to them. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [40 CFR 60.18 (c)(2), 60.18 (e), and 60.18 (f)(2)] Y

Record-keeping Requirements Subparts 60.115b(d)(2), 60.115b(d)(3):

Applicant has proposed the following record-keeping provisions:

1. 60.115b(d)(2): Records shall be maintained of all periods when the flare pilot flame is absent.
2. 60.115b(d)(3): Semi-annual reports of all periods without the presence of a flare pilot flame shall be furnished to the Administrator.

The ATC includes the following conditions:

Semi-annual reports of all periods without the presence of a flare pilot flame shall be furnished to the District Compliance Division and EPA. [District Rule 4001 40CFR 60.115b(d)(3)] N

Records shall be maintained of all periods when the flare pilot flame is absent. [District Rule 40CFR 60.115(d)(2)] N

Section 5.7 This section applies to ground-level enclosed flares. As this flare is an open flare, Section 5.7 does not apply.

Section 5.8 states that flaring is prohibited unless it is consistent with an approved flare minimization plan (FMP), pursuant to Section 6.5, and all commitments listed in that plan have been met. Subsection 6.5.1 requires the operator of a petroleum refinery flare or any flare that has a flaring capacity of greater or equal to 5.0 MMBtu per hour to submit a flare minimization plan (FMP).

A flare minimization plan has been submitted with the application.

Section 5.9 addresses Petroleum Refinery SO₂ Performance Targets. As this flare will not be operated at a petroleum refinery, this section is not applicable.

Section 5.10 requires the operator of a flare subject to flare minimization requirements pursuant to Section 5.8 to monitor the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. The following condition will be included on the ATC:

Gas lines to flare shall be equipped with operational, volumetric flow rate indicator. [District Rule 4311]

Section 5.11 requires the operator of a petroleum refinery or a flare with a flaring capacity equal to or greater than 50 MMBtu/hr to monitor the flare pursuant to Sections 6.6, 6.7, 6.8, 6.9, and 6.10. This flare will not be utilized at a petroleum refinery and does not have a flaring capacity equal to or greater than 50 MMBtu/hr. Therefore, this section is not applicable.

6.0 Administrative Requirements:

Section 6.1 requires the following records to be retained on-site for a minimum of five years:

- Copy of the compliance determination conducted pursuant to Section 6.4.1
- Copy of the source testing result conducted pursuant to Section 6.4.2
- For flares used during an emergency, record of the duration of flare operation, amount of gas burned, and the nature of the emergency situation

- Operators claiming an exemption pursuant to Section 4.3 shall record annual throughput, material usage, or other information necessary to demonstrate an exemption under that section
- Effective on and after July 1, 2011, a copy of the approved flare minimization plan pursuant to Section 6.5
- Effective on and after July 1, 2011, where applicable, monitoring data collected pursuant to Sections 5.10, 6.6, 6.7, 6.8, 6.9, and 6.10

The following condition will ensure compliance with this section:

Section 6.2.1 requires the operator of a flare subject to the flare minimization plan to notify the District of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time.

Section 6.2.2 effective on and after July 1, 2012, and annually thereafter, the operator of a flare subject to flare minimization plans pursuant to Section 5.8 must submit an annual report that summarizes all Reportable Flaring Events.

Section 6.2.3 effective on and after July 1, 2012, and annually thereafter, the operator of a flare subject to flare monitoring requirements pursuant to Sections 5.10, 6.6, 6.7, 6.8, 6.9, and 6.10, as appropriate, shall submit an annual report to the APCO within 30 days following the end of each 12 month period.

Section 6.3 lists test methods an operator can use to demonstrate compliance with this rule. Compliance with this section is expected.

Section 6.4 requires records of compliance with 5.6 to be provided to the District upon request and lists further requirements for enclosed flares. This flare is not subject to the requirements of Section 5.6; therefore, Section 6.4 does not apply.

Section 6.5 requires operators of flares >5.0 MMBtu/hr to submit a flare minimization plan (FMP) by July 1, 2010.

CUSA has submitted a flare minimization plan (FMP) with this application.

Section 6.6 requires the operator of a refinery flare or any flare greater than 50 MMBtu/hr to monitor vent gas composition.

The flare is not operated at a refinery and is less than 50 MMBtu/hr. Therefore, this section does not apply.

Section 6.7 requires the operator of a refinery flare or any flare greater than 50 MMBtu/hr to monitor the volumetric flows of purge and pilot gases with flow measuring devices.

The flare is not operated at a refinery and is less than 50 MMBtu/hr. Therefore, this section does not apply.

Section 6.8 requires operators of flares with water seals to monitor water level and pressure. This flare is not equipped with a water seal; therefore this section is not applicable.

Section 6.9 requires the operator of a refinery flare or any flare greater than 50 MMBtu/hr to comply with general monitoring conditions.

The flare is not operated at a refinery and is less than 50 MMBtu/hr. Therefore, this section does not apply.

Section 6.10 applies to operators of petroleum refinery flares. This stationary source does not refine petroleum products; therefore this section is not applicable.

Compliance is expected.

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

Rule 4409 applies, because the 7F facility handles oil with API gravity greater than 30 degrees and a TVP > 1.5 psia. However, all components and equipment subject to Rule 4623 (tanks and TVR system) is exempt from 4409 requirements.

The only equipment being replaced with this project proposal is vessels subject to Rule 4623.

All other equipment (LACT and truck loading rack) is not being modified, therefore no modifications to the currently approved Rule 4409 Operator Management Plan (OMP) are proposed.

The following condition will be placed on the facility wide permit C-2872-0-0:

Permittee shall comply with all applicable Rule 4409 requirements. [District Rule 4409]

Continued compliance with Rule 4409 is expected.

Rule 4623 Storage of Organic Liquids (5/19/05)

The purpose of this rule is to limit volatile organic compound (VOC) emissions from the storage of organic liquids. This rule applies to any tank with a capacity of 1,100 gallons or greater in which any organic liquid is placed, held, or stored.

The new vessels (tanks and a 3 phase separator) in this project have a capacity greater than 1,100 gallons each. Also, the vessels handle light oil with a TVP up to 4.0 psia. Therefore, this rule is applicable to all of the vessels being installed in this project.

Section 5.1 VOC Control System Requirements

Section 5.1.1 General VOC Control System Requirements

Except for small producers who are required to comply with the VOC control system requirements in Section 5.1.2, an operator shall not place, hold, or store organic liquid in any tank unless such tank is equipped with a VOC control system identified in Table 1. The specifications for the VOC control system are described in Sections 5.2, 5.3, 5.4, 5.5, and 5.6.

Table 1 - General VOC Control System Requirements

Tank Capacity (Gallons)	True Vapor Pressure (TVP) of Organic Liquid		
	0.5 psia to <1.5 psia	1.5 psia to <11 psia	≥11.0 psia
(Group A) 1,100 to 19,800	Pressure-vacuum relief valve, or internal floating roof, or external floating roof, or vapor recovery system	Pressure-vacuum relief valve, or internal floating roof, or external floating roof, or vapor recovery system	Pressure vessel or vapor recovery system
(Group B) > 19,800 to 39,600	Pressure-vacuum relief valve, or internal floating roof, or external floating roof, or vapor recovery system	Internal floating roof, or external floating roof, or vapor recovery system	Pressure vessel or vapor recovery system
(Group C) > 39,600	Internal floating roof, or external floating roof, or vapor recovery system	Internal floating roof, or external floating roof, or vapor recovery system	Pressure vessel or vapor recovery system

All the tanks/vessels in this project are connected to a vapor control system; therefore, the control requirements of Table 1 are satisfied.

The equipment description on every tank/vessel permit will clearly state that the permit unit is vented to the shared TVR system listed on Crude Oil Storage Tank permit C-2872-64-1. The equipment description listed on Permit C-2872-64-1 will identify the specific components of the District approved TVR system (compressor(s), vapor piping, knock out vessel(s) etc.) and identify equipment tied to shared TVR system (tanks, 3 phase separator and truck loading rack).

Tank C-2872-64-1

The following conditions will be listed on the tank ATC permit that includes the TVR system (C-2872-64-1) to ensure compliance with the control requirements of Table 1:

Except as otherwise provided for on this permit, this tank shall only vent to the vapor control system. [District Rules 2201 and 4623, 5.1]

Except as otherwise provided in this permit, the operator shall ensure that the vapor control system is functional and is operating as designed. [District Rules 2201 and 4623, 5.1]

Vapor control system compressor(s) shall activate before the pressure relief valve on any of the units served by the vapor control system vents to the atmosphere. [District Rules 2201 and 4623, 5.1]

Tanks C-2872-65-1 and 67-1

The following condition will be listed on tank ATC's C-2872-65-1 and 67-1 to ensure compliance with the control requirements of Table 1:

Except as otherwise provided for on this permit, the vapor lines from this vessel shall only vent to the vapor control system listed on C-2872-64. [District Rules 2201 and 4623, 5.1]

Three phase separator C-2872-66-1

Except as otherwise provided for on this permit, the vapor lines from this vessel shall only vent to the flare C-2872-69 or DOGGR approved disposal wells. [District Rules 2201 and 4623, 5.1]

Section 5.1.3 requires all tanks subject to the control requirements of this rule to be maintained in a leak-free condition, except for the certain enumerated components on floating roof tanks and as allowed by Section 5.2 and applicable provisions of Table 3 through Table 5, and Section 5.7.5.4.

The following condition will be listed on ATC's C-2872-64-1, '-65-1, '-66-1 and '-67-1 to ensure compliance with leak-free requirements of Section 5.1.3:

Except as otherwise provided on this permit, or in tanks that are connected to this system, tank shall be constructed and maintained in a leak-free¹ condition. [District Rule 4623, 5.1.3]

Section 5.2 Specifications for Pressure-Valve Setting

This section is not applicable to tanks connected to a vapor control system.

Section 5.3 Specifications for External Floating Roof Tanks

The tanks in this project are fixed roof tanks; therefore, this section is not applicable.

Section 5.4 Specifications for Internal Floating Roof Tanks

The tanks in this project are fixed roof tanks; therefore, this section is not applicable.

Section 5.5 Floating Roof Deck Requirements

The tanks in this project are fixed roof tanks; therefore, this section is not applicable.

Section 5.6 Specifications for Vapor Recovery Systems

Section 5.6.1 requires fixed roof tanks to be fully enclosed and maintained in a leak free condition. An APCO-approved vapor recovery system shall consist of a closed system that

¹ "Leak-free" is defined in the I&M conditions on the permit.

collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be maintained in a leak free condition. The VOC control device shall be one of the following:

5.6.1.1 A condensation or vapor return system that connects to one of the following: a gas processing plant, a field gas pipeline, a pipeline distributing Public Utility Commission quality gas for sale, an injection well for disposal of vapors as approved by the California Department of Conservation, Division of Oil Gas, and Geothermal Resources (DOGGR), or

5.6.1.2 A VOC control device that reduces the inlet VOC emissions by at least 95 percent by weight as determined by the test method specified in Section 6.4.6.

The vapor control system connects to DOGGR injection disposal well(s) or flare C-2872-69-0. The equipment description, on the tank listing the TVR system C-2872-64-1 and three phase separator C-2872-66-1, will indicate collected vapors are discharged to DOGGR approved disposal well(s) or flare C-2872-69-0. This will ensure compliance with Section 5.6.1:

Section 5.6.2 requires any tank gauging or sampling device on a tank vented to the vapor recovery system to be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling.

The following condition will be listed on the tank and vessel ATC's to ensure compliance with the requirements of Section 5.6.2:

- *Except as otherwise provided in this permit, 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 Rule 4623, 5.6.2]*

Section 5.6.3 requires all piping, valves, and fittings to be constructed and maintained in a leak free condition.

The following condition will be listed on tank and vessel ATC's to ensure compliance with the requirements of Section 5.6.3:

- *Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.6.3]*

Section 5.7 Voluntary Tank Preventive Inspection and Maintenance, and Tank Interior Cleaning Program

Inspection and Maintenance:

Chevron has proposed to continue to follow the voluntary Inspection and Maintenance program outlined in the rule. The following conditions, taken from draft District Policy SSP 2215, Organic Liquid Storage Tanks – Voluntary Inspection and Maintenance Program will appear on all of the ATC's in this project:

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 shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3]

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 Rule 4623, Table 3]

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 one 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 Rule 4623, Table 3]

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 Rule 4623, Table 3]

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 Rule 4623, Table 3]

If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623, Table 3]

Any component found to be leaking on two consecutive annual inspections is in violation of this rule, even if covered under the voluntary inspection and maintenance program. [District Rule 4623, Table 3]

Tank Interior Cleaning Program:

Chevron has requested tank-cleaning provisions on the permits.² The following conditions are taken from District Policy SSP 2210, Organic Liquid Storage Tanks – Cleaning Requirements and will be included on all of the ATC's in this project:

Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7]

This tank shall be degassed before commencing interior cleaning by one of the following methods (1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or (2) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank

² The horizontal three phase separator vessel also qualifies as a tank under the Section 3.30 definition of a tank in this rule: "any stationary container, reservoir, or vessel, in which an organic liquid is placed, held, or stored."

with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water or produced water derived from crude oil having a TVP less than 0.5 psia; or (3) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7]

During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7]

To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a man way, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7]

This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid. [District Rule 4623, 5.7]

After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid is placed, held, or stored in this tank. [District Rule 4623, 5.7]

While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7]

Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7]

During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7]

Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7]

Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623, 5.7]

Since Rule 4623, Table 3 does not explicitly state what records are required from the I&M conducted, nor is a recordkeeping condition specified in draft District Policy SSP 2215, Organic Liquid Storage Tanks – Voluntary Inspection and Maintenance Program, the following standard I&M recordkeeping condition found on most oil production tank permits. The rule citation is District Rule 1070, Inspections.

Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 1070]

Section 6.2 TVP and API Gravity Testing of Stored Organic Liquids in Uncontrolled Fixed Roof Tanks

Section 6.2 concerns TVP and API gravity testing of stored organic liquids in uncontrolled fixed roof tanks. This section requires initial and periodic testing of the TVP and API gravity of the oil stored. The API gravity determines which TVP test method is appropriate. This section

also allows for representative testing of the organic liquid in a tank battery provided the enumerated criteria are met.

Section 6.2.3 exempts tanks subject to the control requirements in Table 1 (Group A) or Table 2 (Group A and B) of this rule from the initial and periodic testing requirements. All the tanks in this project are connected to a vapor control system; therefore, none of the tanks are subject to the testing requirements of this rule.

Section 6.3 Recordkeeping

This section requires an operator to retain accurate records required by this rule for a period of five years. Records must be made available to the APCO upon request, except for certain records that need to be submitted as specified in the respective sections (e.g. 6.3.6) below.

Compliance with the record retention requirements of this section is ensured by the following standard permit condition which will appear on all the ATC's in this project:

The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 4623, 6.3]

Section 6.3.6 requires an operator to submit the records of TVP and API gravity testing conducted in accordance with the requirements of Section 6.2 to the APCO within 45 days after the date of testing. The record should include the tank identification number, PTO number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results.

None of the tanks in this project are subject to the TVP or API gravity testing requirements; therefore, Section 6.3.6 is not applicable.

Section 6.4 Test Methods

The tanks in this project are not subject to periodic API gravity or TVP testing requirements. Therefore, the approved test methods for API gravity and TVP will not be listed on the ATC's.

Section 7.2 Compliance Schedule

Any tank that is exempted under Section 4.0 that becomes subject to the VOC control system requirements of this rule through the loss of exemption status shall be in full compliance with this rule on the date the exemption status is lost.

The tanks in this project will be in full compliance with the requirements of this rule. Compliance with the requirements of this rule is expected.

Rule 4624 Organic Liquid Loading

The purpose of Rule 4624 is to limit VOC emissions from the transfer of organic liquids.

The Rule applies to organic liquid transfer facilities (Defined as any transfer racks and vapor control equipment at a location, including, but not limited to, the stationary organic liquid pump, the hose end connector, and the discharge of the vapor control devices).

The tank and TVR components are subject to Rule 4623. The other liquid piping components are subject to Rule 4409. Therefore there are no Rule 4624 Section 5.9 (leak inspection) requirements for the equipment associated with the truck loading rack.

Section 5.2 Requirements of Class 2 Loading Facility

A Class 2 organic liquid transfer facility shall prevent the release to the atmosphere of at least 95 percent by weight of the VOC displaced during organic liquid transfers and use one of the following systems:

- A) An organic liquid loading operation shall be bottom loaded, equipped with a vapor collection and control system and the vapors from loading the tank truck, trailer, or railroad tank car shall be routed to the vapor collection and control system; or
- B) The VOC from the transfer operation shall be routed to:
 - 1) A vapor collection and control system; or
 - 2) A fixed roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or
 - 3) A floating roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or
 - 4) A pressure vessel equipped with an APCO-approved vapor recovery system that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or
 - 5) A closed VOC emission control system.

CUSA will route the displaced truck vapors to the TVR system serving the tank battery (and truck load out) C-2872-64. In order to be a Class 2 loading operation, less than 20,000 gallons per day can be loaded out. The following condition will appear on the ATC:

Total product loaded into trucks via truck loading rack shall not exceed 19,999 gallons per day. [District Rules 2201 and 4624]

During truck loading, displaced vapors shall be vented to the TVR system listed on tank permit C-2872-64. [District Rule 4624, 5.1.2.1 and 6.2.1.3]

Controlled VOC emissions from truck loading operation shall not exceed 0.0516 lb-VOC/1000 gallons loaded. [District Rules 2201 and 4624]

Sections 5.3 through 5.5

5.3 A transfer operation utilizing a closed VOC emission control system or utilizing a container that meets the control requirements of Rule 4623 (Storage of Organic Liquids) to meet the emission control requirements of this rule shall demonstrate compliance with Sections 5.1 and 5.2 by complying with the leak inspection requirements of Section 5.9.

- 5.4 The vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and six (6) inches water column vacuum. This section shall not apply to the transfer of liquefied petroleum gas.
- 5.5 All delivery tanks which previously contained organic liquids with a TVP of 1.5 psia or greater at the storage container's maximum organic liquid storage temperature shall be filled only at transfer facilities satisfying Sections 5.1, 5.2, or 5.4, as applicable.
- 5.6 The transfer rack and vapor collection equipment shall be designed, installed, maintained and operated such that there are no leaks and no excess organic liquid drainage at disconnections.

The following condition will be included on the ATC:

The following condition will appear on the truck loading ATC:

Transfer rack shall be maintained and operated in accordance with the manufacturer's specifications, and operated such that there are no leaks or excess organic liquid drainage at disconnections as defined herein. [District Rule 4624]

Vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and six inches water column vacuum. [District Rule 4624]

Section 6.0 Administrative requirements

6.1 Recordkeeping

Section 6.1.3 requires an operator subject to any part of Section 5.0 to keep records of daily liquid throughput and the results of any leak inspections.

Applicant is exempt from the leak inspections required by the rule (Per section 4.4); however throughput record keeping requirements still apply.

The following condition will appear on the truck loading ATC to ensure compliance:

The operator shall maintain records of number of daily disconnects and truck load out daily liquid throughput. Records shall be retained for a minimum of five years and made readily available during normal business hours and submitted upon request to the APCO, CARB, or EPA. [District Rule 4624]

6.2 Compliance Testing

- 6.2.1 By July 20, 2009, the operator of any Class 1 or Class 2 organic liquid transfer facility shall perform an initial source test of the VOC emission control system in accordance with the method prescribed in Section 6.3.2 to determine compliance with Section 5.1 and 5.2, as applicable.

- 6.2.1.1 Facilities in existence prior to December 20, 2007 that have performed the test specified in Section 6.3.2 within the 60 month period preceding December 20, 2007 need not perform an initial source test.
- 6.2.1.2 The source testing requirements of Section 6.2.1 shall not apply to any Class 1 or Class 2 organic liquid transfer facility equipped with a closed VOC control system.
- 6.2.1.3 The source testing requirements of Section 6.2.1 shall not apply to any Class 1 or Class 2 organic liquid transfer facility controlling VOC by routing vapors to:
- 6.2.1.3.1 A fixed roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or
- 6.2.1.3.2 A floating roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or
- 6.2.1.3.3 A pressure vessel equipped with an APCO-approved vapor recovery system that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids).

Compliance testing is not required by inclusion the following condition on the ATC:

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

Compliance with this rule is expected.

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Rule 4801 Sulfur Compounds

This rule prohibits the discharge into the atmosphere of any sulfur compounds in excess of 0.2% or 2000 ppmv.
This rule is applicable to the flare.

Assumptions:

Heating value of flare gas = 1,000 Btu/scf.
F-Factor for natural gas : 8578 dscf/MMBtu corrected to 60 deg F (40 CFR 60, Appendix B)
Maximum proposed sulfur content = 1.8 grain S/100 scf
1.8 grain S/100 scf = 30.4 ppmv H₂S
30.4 ppmv H₂S = 30.4 scf H₂S/10⁶ scf flare gas

$$\text{PPMV H}_2\text{S} = \frac{30.4 \text{ scf H}_2\text{S}}{10^6 \text{ scf flare gas}} \times \frac{1 \text{ scf flare gas}}{1,000 \text{ Btu}} \times \frac{10^6 \text{ Btu}}{8,578 \text{ scf exhaust}} \times \frac{1 \text{ scf SO}_2}{1 \text{ scf H}_2\text{S}} \times 10^6 \text{ ppm}$$
$$= 3.5 \text{ ppmv SO}_2$$

3.5 ppmv < 2,000 ppmv; therefore, compliance with District Rule 4801 is expected. The following condition will ensure compliance with this rule:

Sulfur content of gas flared shall not exceed 1.8 grain-S/100 scf. [District Rules 2201 and 4801]

California Health & Safety Code 42301.6 (School Notice)

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 subject unit will combust natural gas from facility C-2872 which is subject to ARB's Cap and Trade regulation. Consistent with CCR §15064(h)(3), the District finds that compliance with ARB's Cap and Trade regulation would avoid or substantially lessen the impact of project-specific GHG emissions on global climate change. The District therefore concludes that projects occurring at facilities subject to ARB's Cap and Trade regulation would have a less than significant individual and cumulative impact on global climate change.

X. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful public noticing period, issue Authority's to Construct C-2872-64-1, 65-1, 66-1, 67-1, 68-1 and 69-0 subject to the permit conditions on the attached draft Authorities to Construct in **Attachment X**.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
C-2782-64-1	3020-05-C	42,000 GALLONS (1,000 BBL)	\$135.00
C-2782-65-1	3020-05-C	42,000 GALLONS (1,000 BBL)	\$135.00
C-2782-66-1	3020-05-A	12,600 GALLONS (300 BBL)	\$75.00
C-2782-67-1	3020-05-C	42,000 GALLONS (1,000 BBL)	\$135.00
C-2782-68-1	3020-01-A	Up to 25 hp (Electric motor hp)	\$87.00
C-2782-69-0	3020-02-H	49 MMBtu/hr Flare	\$1030.00

Attachments

- I: ATCs C-2872-64-0 through '-68-0 and PTOs C-2872-1-1 through '-4-1 and '-7-1 (to be cancelled)
- II: Location Map
- III: Manufacturer's Specifications on Flare
- IV: Fugitive Emissions Calculations
- V: Truck Load out Emissions
- VI: Emissions Profiles
- VII: BACT Guidelines
- VIII: BACT Analyses
- IX: HRA and AAQA
- X: Draft ATCs

ATTACHMENT I
ATCs C-2872-64-0 through '-68-0 and PTOs C-2872-1-1
through '-4-1 and '-7-1 (to be cancelled)

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-2872-2-1

EXPIRATION DATE: 10/31/2017

SECTION: 7F TOWNSHIP: 19S RANGE: 15E

EQUIPMENT DESCRIPTION:

5,000 BBL FIXED-ROOF, 3-RING BOLTED, CLARIFIER TANK #T-500

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The 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 leak free 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 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]
3. Except as otherwise provided in this permit all piping, valves, and fittings shall be constructed and maintained in a leak free condition. [District Rule 4623]
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) from the total number of vapor components associated with this permit unit shall not exceed 6.9 lb/day. [District Rule 2201]
6. Permittee shall maintain accurate component count for this permit unit according to EPA's "Protocol for Equipment Leak Emission Estimate," Table 2-4, Oil and Gas Production Operations Average Emissions Factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201]
7. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
8. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
10. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623]
11. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623]
12. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623]
13. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623]
14. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623]
15. During sludge removal from a tank containing an organic liquid with a tvp of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623]
16. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater in closed, liquid leak-free containers. [District Rule 4623]
17. Permittee shall store removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Intermediate storage of sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater while determining suitability for use as roadmix must be in vapor leak free containers or in tanks complying with the vapor control requirements of Rule 4623. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623]
18. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection and method of detection; 3) Date and time of leak repair and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2080]
19. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080]
20. 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 shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623]
21. 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 Rule 4623]
22. 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 one 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 Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

23. 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 Rule 4623]
24. 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 Rule 4623]
25. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623]
26. Any component found to be leaking on two consecutive annual inspections is in violation of this rule, even if covered under the voluntary inspection and maintenance program. [District Rule 4623]
27. 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]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-2872-1-1

EXPIRATION DATE: 10/31/2017

SECTION: 7F TOWNSHIP: 19S RANGE: 15E

EQUIPMENT DESCRIPTION:

5,000 BBL FIXED-ROOF, 2-RING BOLTED, CLARIFIER TANK #T-300

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The 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 leak free 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 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]
3. Except as otherwise provided in this permit all piping, valves, and fittings shall be constructed and maintained in a leak free condition. [District Rule 4623]
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) from the total number of vapor components associated with this permit unit shall not exceed 7.6 lb/day. [District Rule 2201]
6. Permittee shall maintain accurate component count for this permit unit according to EPA's "Protocol for Equipment Leak Emission Estimate," Table 2-4, Oil and Gas Production Operations Average Emissions Factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201]
7. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
8. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

9. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
10. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623]
11. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623]
12. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623]
13. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623]
14. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623]
15. During sludge removal from a tank containing an organic liquid with a tvp of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623]
16. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater in closed, liquid leak-free containers. [District Rule 4623]
17. Permittee shall store removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Intermediate storage of sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater while determining suitability for use as roadmix must be in vapor leak free containers or in tanks complying with the vapor control requirements of Rule 4623. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623]
18. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection and method of detection; 3) Date and time of leak repair and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2080]
19. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080]
20. 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 shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623]
21. 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 Rule 4623]
22. 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 one 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 Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: CHEVRON USA, INC.

Location: LIGHT OIL PRODUCTION, FRESNO COUNTY, CA

C-2872-1-1; Jan 2 2014 3:05 PM - EDG:DLR

23. 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 Rule 4623]
24. 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 Rule 4623]
25. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623]
26. Any component found to be leaking on two consecutive annual inspections is in violation of this rule, even if covered under the voluntary inspection and maintenance program. [District Rule 4623]
27. 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]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-2872-3-1

EXPIRATION DATE: 10/31/2017

SECTION: 7F TOWNSHIP: 19S RANGE: 15E

EQUIPMENT DESCRIPTION:

5,000 BBL FIXED-ROOF, 3-RING WELDED, CLARIFIER TANK #T-400

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The 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 leak free 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 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]
3. Except as otherwise provided in this permit all piping, valves, and fittings shall be constructed and maintained in a leak free condition. [District Rule 4623]
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) from the total number of vapor components associated with this permit unit shall not exceed 12.0 lb/day. [District Rule 2201]
6. Permittee shall maintain accurate component count for this permit unit according to EPA's "Protocol for Equipment Leak Emission Estimate," Table 2-4, Oil and Gas Production Operations Average Emissions Factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201]
7. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
8. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
10. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623]
11. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623]
12. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623]
13. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623]
14. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623]
15. During sludge removal from a tank containing an organic liquid with a tvp of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623]
16. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater in closed, liquid leak-free containers. [District Rule 4623]
17. Permittee shall store removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Intermediate storage of sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater while determining suitability for use as roadmix must be in vapor leak free containers or in tanks complying with the vapor control requirements of Rule 4623. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623]
18. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection and method of detection; 3) Date and time of leak repair and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2080]
19. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080]
20. 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 shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623]
21. 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 Rule 4623]
22. 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 one 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 Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

23. 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 Rule 4623]
24. 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 Rule 4623]
25. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623]
26. Any component found to be leaking on two consecutive annual inspections is in violation of this rule, even if covered under the voluntary inspection and maintenance program. [District Rule 4623]
27. 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]

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

AUTHORITY TO CONSTRUCT

PERMIT NO: C-2872-68-0

ISSUANCE DATE: 01/16/2014

LEGAL OWNER OR OPERATOR: CHEVRON USA, INC.
MAILING ADDRESS: P O BOX 1392
BAKERSFIELD, CA 93302

LOCATION: LIGHT OIL PRODUCTION
FRESNO COUNTY, CA

SECTION: 7 TOWNSHIP: 19S RANGE: 15E

EQUIPMENT DESCRIPTION:

CLASS 2 ORGANIC LIQUID TRUCK LOADING OPERATION WITH VAPOR RETURN PIPING CONNECTED TO TANK VAPOR CONTROL SYSTEM LISTED ON PERMIT C-2872-64

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The unit shall always operate at least 805 ft away from the nearest receptor. [District Rule 4102]
3. During truck loading, displaced vapors shall be vented to the TVR system listed on tank permit C-2872-64. [District Rule 4624, 5.1 and 6.2]
4. Vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and six inches water column vacuum. [District Rule 4624]
5. Total product loaded into trucks via truck loading rack shall not exceed 19,999 gallons per day. [District Rules 2201 and 4624]
6. Controlled VOC emissions from truck loading operation shall not exceed 0.26 lb-VOC/1000 gallons loaded. [District Rules 2201 and 4624]
7. Total number of disconnects shall not exceed 5 per day. [District Rule 2201]
8. During hose disconnects the maximum liquid spillage for liquids shall not exceed 8 milliliters/disconnect based on an average from 3 consecutive disconnects. [District Rule 2201 and 4624]
9. Liquid components shall comply with Rule 4409 requirements. [District Rule 4409]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
C-2872-68-0 Jan 16 2014 3:05PM - EDG/ELR - Job/Inspec/Permit Required

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10. Components subject to Rule 4409 and 4623 (vapor components tied to TVR system listed on C-2872-64) are exempt from the leak inspection requirements of Rule 4624. [District Rule 4624]
11. The operator shall maintain records of truck load out daily liquid throughput and number of disconnects. Records shall be retained for a minimum of five years and made readily available during normal business hours and submitted upon request to the APCO, CARB, or EPA. [District Rule 4624]
12. ATC shall be implemented concurrently with or subsequent to ATC C-2872-64-0. [District Rule 2201]

AUTHORITY TO CONSTRUCT

PERMIT NO: C-2872-67-0

ISSUANCE DATE: 01/16/2014

LEGAL OWNER OR OPERATOR: CHEVRON USA, INC.
MAILING ADDRESS: P O BOX 1392
BAKERSFIELD, CA 93302

LOCATION: LIGHT OIL PRODUCTION
FRESNO COUNTY, CA

SECTION: 7 TOWNSHIP: 19S RANGE: 15E

EQUIPMENT DESCRIPTION:

UP TO 1000 BBL FIXED ROOF CRUDE OIL WASH TANK (7FT3) CONNECTED TO TANK VAPOR CONTROL SYSTEM LISTED ON PERMIT C-2872-64

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The unit shall always operate at least 805 ft away from the nearest receptor. [District Rule 4102]
3. Except as otherwise provided on this permit, this tank shall be maintained in a leak-free condition. [District Rule 4623, 5.1]
4. Except as otherwise provided in this permit, 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 Rule 4623, 5.6]
5. Except as otherwise provided for on this permit, this tank shall only vent to the vapor control system. [District Rules 2201 and 4623, 5.1]
6. VOC fugitive emissions from the components in gas and liquid service on the tank shall not exceed 7.3 lb/day. [District Rule 2201]
7. Permittee shall maintain accurate component count for tank according to EPA's "Protocol for Equipment Leak Emission Estimate," Table 2-4 (EPA-453/R-95-017), Oil and Gas Production Operations Average Emission Factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Sayed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
C-2872-67-0, Jan 3 2014 3:05PM - EDOENLR, Joint Inspection NOT Required

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8. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623, 5.1]
9. Any component found to be leaking by the operator on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623, Table 3]
10. 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 shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 2201 and 4623, Table 3]
11. 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, Table 3]
12. 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 one 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, Table 3]
13. 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, Table 3]
14. 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, Table 3]
15. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system 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, Table 3]
16. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201 and 4623, 5.7 and 6.3]
17. 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 2080]
18. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7]

CONDITIONS CONTINUE ON NEXT PAGE

19. This tank shall be degassed before commencing interior cleaning by one of the following methods (1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or (2) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or (3) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7]
20. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7]
21. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7]
22. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid. [District Rule 4623, 5.7]
23. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid is placed, held, or stored in this tank. [District Rule 4623, 5.7]
24. While performing tank cleaning activities, operators may only use the following cleaning agents: water, diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7]
25. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623]
26. During sludge removal from a vessel containing an organic liquid with a TVP of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7]
27. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, in closed liquid leak-free containers. [District Rule 4623, 5.7]
28. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623, 5.7]
29. All records of required monitoring data and support information 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 Rules 2201 and 4623, 5.7 and 6.3]
30. ATC shall be implemented concurrently with or subsequent to ATC C-2872-64-0. [District Rule 2201]

AUTHORITY TO CONSTRUCT

PERMIT NO: C-2872-66-0

ISSUANCE DATE: 01/16/2014

LEGAL OWNER OR OPERATOR: CHEVRON USA, INC.
MAILING ADDRESS: P O BOX 1392
BAKERSFIELD, CA 93302

LOCATION: LIGHT OIL PRODUCTION
FRESNO COUNTY, CA

SECTION: 7 TOWNSHIP: 19S RANGE: 15E

EQUIPMENT DESCRIPTION:
UP TO 300 BBL HORIZONTAL THREE PHASE SEPARATOR VESSEL (7FV1) CONNECTED TO TANK VAPOR CONTROL SYSTEM LISTED ON PERMIT C-2872-64

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The unit shall always operate at least 805 ft away from the nearest receptor. [District Rule 4102]
3. Except as otherwise provided on this permit, this separator shall be maintained in a leak-free condition. [District Rule 4623, 5.1]
4. Except as otherwise provided in this permit, any separator gauging or sampling device on a separator 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 Rule 4623, 5.6]
5. Except as otherwise provided for on this permit, this separator shall only vent to the vapor control system. [District Rules 2201 and 4623, 5.1]
6. VOC fugitive emissions from the components in gas and liquid service on the phase separator shall not exceed 12.0 lb/day. [District Rule 2201]
7. Permittee shall maintain accurate component count for separator according to EPA's "Protocol for Equipment Leak Emission Estimate," Table 2-4 (EPA-453/R-95-017), Oil and Gas Production Operations Average Emission Factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
01/16/2014 1:05PM EDC:198R - J:\inspector\NDT\K\2872

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8. All piping, fittings, and valves on this separator shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623, 5.1]
9. Any component found to be leaking by the operator on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623, Table 3]
10. Operator shall visually inspect separator shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the separator and within five feet of the separator 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 shells and roofs of uninsulated separators for structural integrity annually. [District Rule 2201 and 4623, Table 3]
11. 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, Table 3]
12. 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 one 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, Table 3]
13. 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, Table 3]
14. 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, Table 3]
15. If a component type for a given separator is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the separator or separator system 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, Table 3]
16. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201 and 4623, 5.7 and 6.3]
17. 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 2080]
18. Permittee shall notify the APCO in writing at least three (3) days prior to performing separator degassing and interior separator cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the separator being degassed, 2) the date and time that separator degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the separator, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7]

CONDITIONS CONTINUE ON NEXT PAGE

19. This separator shall be degassed before commencing interior cleaning by one of the following methods (1) exhausting VOCs contained in the separator vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or (2) displacing VOCs contained in the separator vapor space to an APCO-approved vapor recovery system by filling the separator with a suitable liquid until 90 percent or more of the maximum operating level of the separator is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or (3) displacing VOCs contained in the separator vapor space to an APCO-approved vapor recovery system by filling the separator with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the separator capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7]
20. During separator degassing, the operator shall discharge or displace organic vapors contained in the separator vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7]
21. To facilitate connection to an external APCO-approved recovery system, a suitable separator fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7]
22. This separator shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the separator with an organic liquid. [District Rule 4623, 5.7]
23. After a separator has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid is placed, held, or stored in this separator. [District Rule 4623, 5.7]
24. While performing separator cleaning activities, operators may only use the following cleaning agents: water, diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7]
25. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7]
26. During sludge removal from a vessel containing an organic liquid with a TVP of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7]
27. Permittee shall only transport removed sludge from a separator containing an organic liquid with a TVP of 1.5 psia or greater, in closed liquid leak-free containers. [District Rule 4623, 5.7]
28. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in separators complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623, 5.7]
29. All records of required monitoring data and support information 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 Rules 2201 and 4623, 5.7 and 6.3]
30. ATC shall be implemented concurrently with or subsequent to ATC C-2872-64-0. [District Rule 2201]

AUTHORITY TO CONSTRUCT

PERMIT NO: C-2872-64-0

ISSUANCE DATE: 01/16/2014

LEGAL OWNER OR OPERATOR: CHEVRON USA, INC.
MAILING ADDRESS: P O BOX 1392
BAKERSFIELD, CA 93302

LOCATION: LIGHT OIL PRODUCTION
FRESNO COUNTY, CA

SECTION: 7 TOWNSHIP: 19S RANGE: 15E

EQUIPMENT DESCRIPTION:

UP TO 1000 BBL FIXED ROOF CRUDE OIL STORAGE TANK (7FT1), INCLUDING LACT UNIT WITH LIQUID PUMPS DISCHARGING TO TRUCK LOADOUT LISTED ON PERMIT C-2872-68, AND VENTING TO TANK VAPOR CONTROL SYSTEM SHARED WITH TANKS C-2872-65, '-66, '-67, AND TRUCK LOADOUT C-2872-68, DISCHARGING COLLECTED VAPORS TO DOGGR-APPROVED DISPOSAL WELLS

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The unit shall always operate at least 805 ft away from the nearest receptor. [District Rule 4102]
3. The vapor control system shall be capable of reducing VOC emissions by at least 95% by weight. [District Rule 4623, 5.7]
4. Collected tank vapors shall be reinjected into DOGGR-approved disposal well. [District Rule 2201]
5. Except as otherwise provided on this permit, this tank shall be maintained in a leak-free condition. [District Rule 4623, 5.1]
6. Except as otherwise provided in this permit, 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 Rule 4623, 5.6]
7. Except as otherwise provided for on this permit, this tank shall only vent to the vapor control system. [District Rules 2201 and 4623, 5.1]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5960 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

Arnaud Marjollet, Director of Permit Services
C-2872-64-0 Jan 3 2014 3:05PM - EDOEMLR : Air Inspection NOT Required

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8. Except as otherwise provided in this permit, the vapor control system shall be maintained in a leak-free condition. [District Rule 4623, 5.1]
9. VOC fugitive emissions from the components in gas and liquid service on the tank and LACT shall not exceed 7.6 lb/day. [District Rule 2201]
10. VOC fugitive emissions from the components in gas and liquid service part of the vapor control system shall not exceed 23.2 lb/day. [District Rule 2201]
11. Permittee shall maintain accurate component count for tank and TVR system according to EPA's "Protocol for Equipment Leak Emission Estimate," Table 2-4 (EPA-453/R-95-017), Oil and Gas Production Operations Average Emission Factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201]
12. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623, 5.1]
13. Any component found to be leaking by the operator on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623, Table 3]
14. 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 shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 2201 and 4623, Table 3]
15. 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, Table 3]
16. 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 one 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, Table 3]
17. 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, Table 3]
18. 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, Table 3]
19. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system 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, Table 3]
20. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201 and 4623, 5.7 and 6.3]
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 2080]

CONDITIONS CONTINUE ON NEXT PAGE

22. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7]
23. This tank shall be degassed before commencing interior cleaning by one of the following methods (1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or (2) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or (3) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7]
24. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7]
25. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7]
26. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid. [District Rule 4623, 5.7]
27. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid is placed, held, or stored in this tank. [District Rule 4623, 5.7]
28. While performing tank cleaning activities, operators may only use the following cleaning agents: water, diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7]
29. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7]
30. During sludge removal from a vessel containing an organic liquid with a TVP of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7]
31. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, in closed liquid leak-free containers. [District Rule 4623, 5.7]
32. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623, 5.7]
33. All records of required monitoring data and support information 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 Rules 2201 and 4623, 5.7 and 6.3]
34. PTOs C-2872-1-1 through '4-1, and '7-1 shall be cancelled upon implementation of ATC. [District Rule 2201]

AUTHORITY TO CONSTRUCT

PERMIT NO: C-2872-65-0

ISSUANCE DATE: 01/16/2014

LEGAL OWNER OR OPERATOR: CHEVRON USA, INC.
MAILING ADDRESS: P O BOX 1392
BAKERSFIELD, CA 93302

LOCATION: LIGHT OIL PRODUCTION
FRESNO COUNTY, CA

SECTION: 7 TOWNSHIP: 18S RANGE: 15E

EQUIPMENT DESCRIPTION:

UP TO 1000 BBL FIXED ROOF CRUDE OIL DRAIN TANK (7FT2) CONNECTED TO TANK VAPOR CONTROL SYSTEM LISTED ON PERMIT C-2872-64

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The unit shall always operate at least 805 ft away from the nearest receptor. [District Rule 4102]
3. Except as otherwise provided on this permit, this tank shall be maintained in a leak-free condition. [District Rule 4623, 5.1]
4. Except as otherwise provided in this permit, 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 Rule 4623, 5.6]
5. Except as otherwise provided for on this permit, this tank shall only vent to the vapor control system. [District Rules 2201 and 4623, 5.1]
6. Except as otherwise provided in this permit, the vapor control system shall be maintained in a leak-free condition. [District Rule 4623, 5.1]
7. VOC fugitive emissions from the components in gas and liquid service on the tank shall not exceed 4.9 lb/day. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5960 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

Amaud Marjollet, Director of Permit Services

C-2872-65-0 Jan 13 2014 3:05PM - EDG/MLR - Jurisdiction NOT Required

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8. Permittee shall maintain accurate component count for tank according to EPA's "Protocol for Equipment Leak Emission Estimate," Table 2-4 (EPA-453/R-95-017), Oil and Gas Production Operations Average Emission Factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201]
9. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623, 5.1]
10. Any component found to be leaking by the operator on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623, Table 3]
11. 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 shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 2201 and 4623, Table 3]
12. 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, Table 3]
13. 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 one 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, Table 3]
14. 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, Table 3]
15. 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, Table 3]
16. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system 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, Table 3]
17. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201 and 4623, 5.7 and 6.3]
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 2080]
19. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7]

CONDITIONS CONTINUE ON NEXT PAGE

20. This tank shall be degassed before commencing interior cleaning by one of the following methods (1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or (2) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or (3) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7]
21. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7]
22. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7]
23. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid. [District Rule 4623, 5.7]
24. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid is placed, held, or stored in this tank. [District Rule 4623, 5.7]
25. While performing tank cleaning activities, operators may only use the following cleaning agents: water, diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7]
26. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7]
27. During sludge removal from a vessel containing an organic liquid with a TVP of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7]
28. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, in closed liquid leak-free containers. [District Rule 4623, 5.7]
29. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623, 5.7]
30. All records of required monitoring data and support information 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 Rules 2201 and 4623, 5.7 and 6.3]
31. ATC shall be implemented concurrently with or subsequent to ATC C-2872-64-0. [District Rule 2201]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-2872-7-1

EXPIRATION DATE: 10/31/2017

SECTION: 7 TOWNSHIP: 19S RANGE: 15E

EQUIPMENT DESCRIPTION:

3,000 BBL WASH TANK #T-200

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The 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 leak free 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 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]
3. Except as otherwise provided in this permit all piping, valves, and fittings shall be constructed and maintained in a leak free condition. [District Rule 4623]
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) from the total number of vapor components associated with this permit unit shall not exceed 7.3 lb/day. [District Rule 2201]
6. Permittee shall maintain accurate component count for this permit unit according to EPA's "Protocol for Equipment Leak Emission Estimate," Table 2-4, Oil and Gas Production Operations Average Emissions Factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201]
7. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
8. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
10. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623]
11. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623]
12. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623]
13. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623]
14. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623]
15. During sludge removal from a tank containing an organic liquid with a tvp of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623]
16. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater in closed, liquid leak-free containers. [District Rule 4623]
17. Permittee shall store removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Intermediate storage of sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater while determining suitability for use as roadmix must be in vapor leak free containers or in tanks complying with the vapor control requirements of Rule 4623. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623]
18. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection and method of detection; 3) Date and time of leak repair and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2080]
19. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080]
20. 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 shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623]
21. 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 Rule 4623]
22. 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 one 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 Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. 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 Rule 4623]
24. 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 Rule 4623]
25. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623]
26. Any component found to be leaking on two consecutive annual inspections is in violation of this rule, even if covered under the voluntary inspection and maintenance program. [District Rule 4623]
27. 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]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-2872-4-1

EXPIRATION DATE: 10/31/2017

SECTION: 7F TOWNSHIP: 19S RANGE: 15E

EQUIPMENT DESCRIPTION:

5,000 BBL FIXED-ROOF, 3 RING WELDED PRODUCTION TANK #T-600

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The 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 leak free 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 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]
3. Except as otherwise provided in this permit all piping, valves, and fittings shall be constructed and maintained in a leak free condition. [District Rule 4623]
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) from the total number of vapor components associated with this permit unit shall not exceed 4.9 lb/day. [District Rule 2201]
6. Permittee shall maintain accurate component count for this permit unit according to EPA's "Protocol for Equipment Leak Emission Estimate," Table 2-4, Oil and Gas Production Operations Average Emissions Factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201]
7. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
8. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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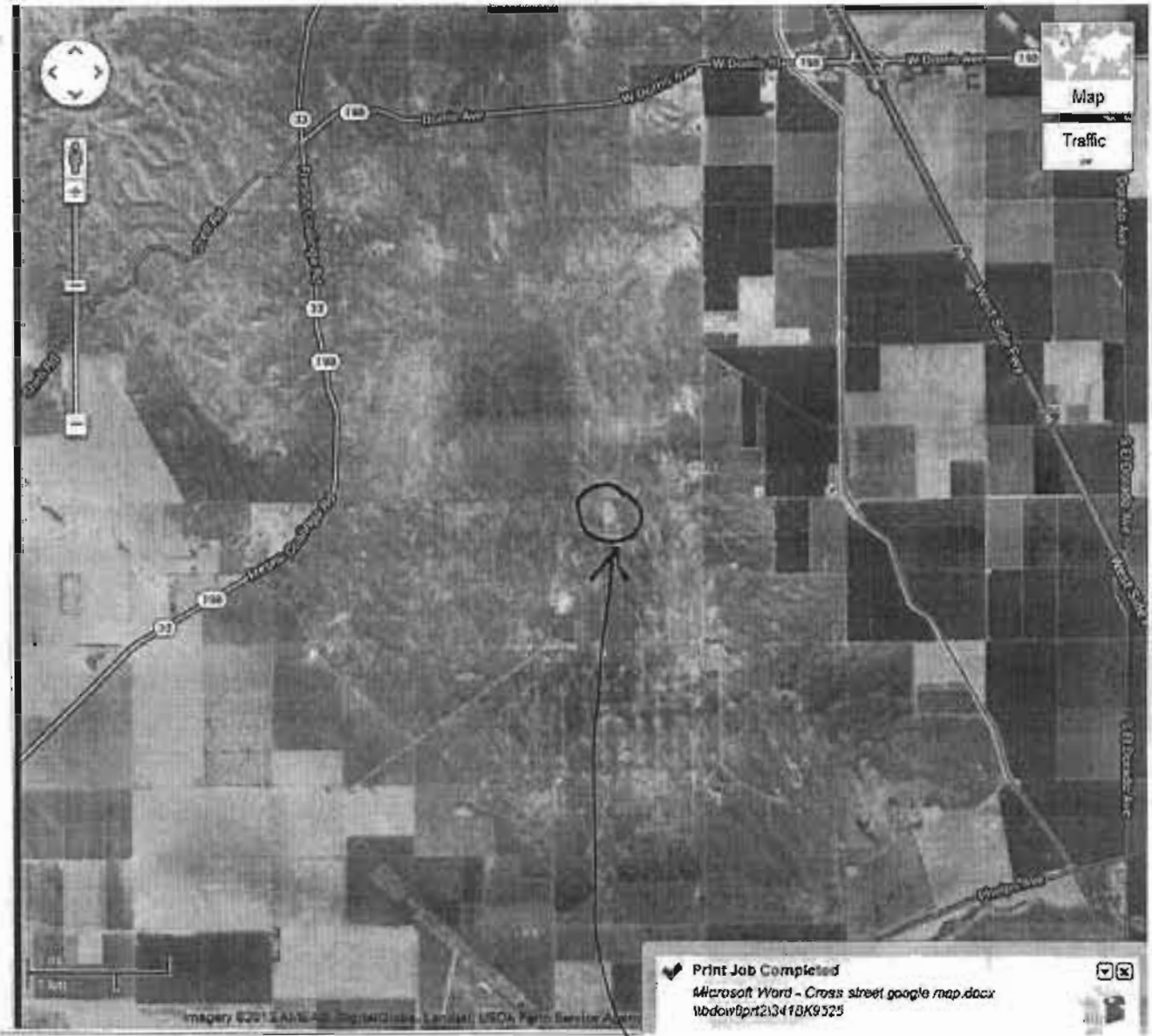
9. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
10. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623]
11. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623]
12. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623]
13. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623]
14. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623]
15. During sludge removal from a tank containing an organic liquid with a tvp of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623]
16. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater in closed, liquid leak-free containers. [District Rule 4623]
17. Permittee shall store removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Intermediate storage of sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater while determining suitability for use as roadmix must be in vapor leak free containers or in tanks complying with the vapor control requirements of Rule 4623. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623]
18. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection and method of detection; 3) Date and time of leak repair and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2080]
19. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080]
20. 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 shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623]
21. 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 Rule 4623]
22. 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 one 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 Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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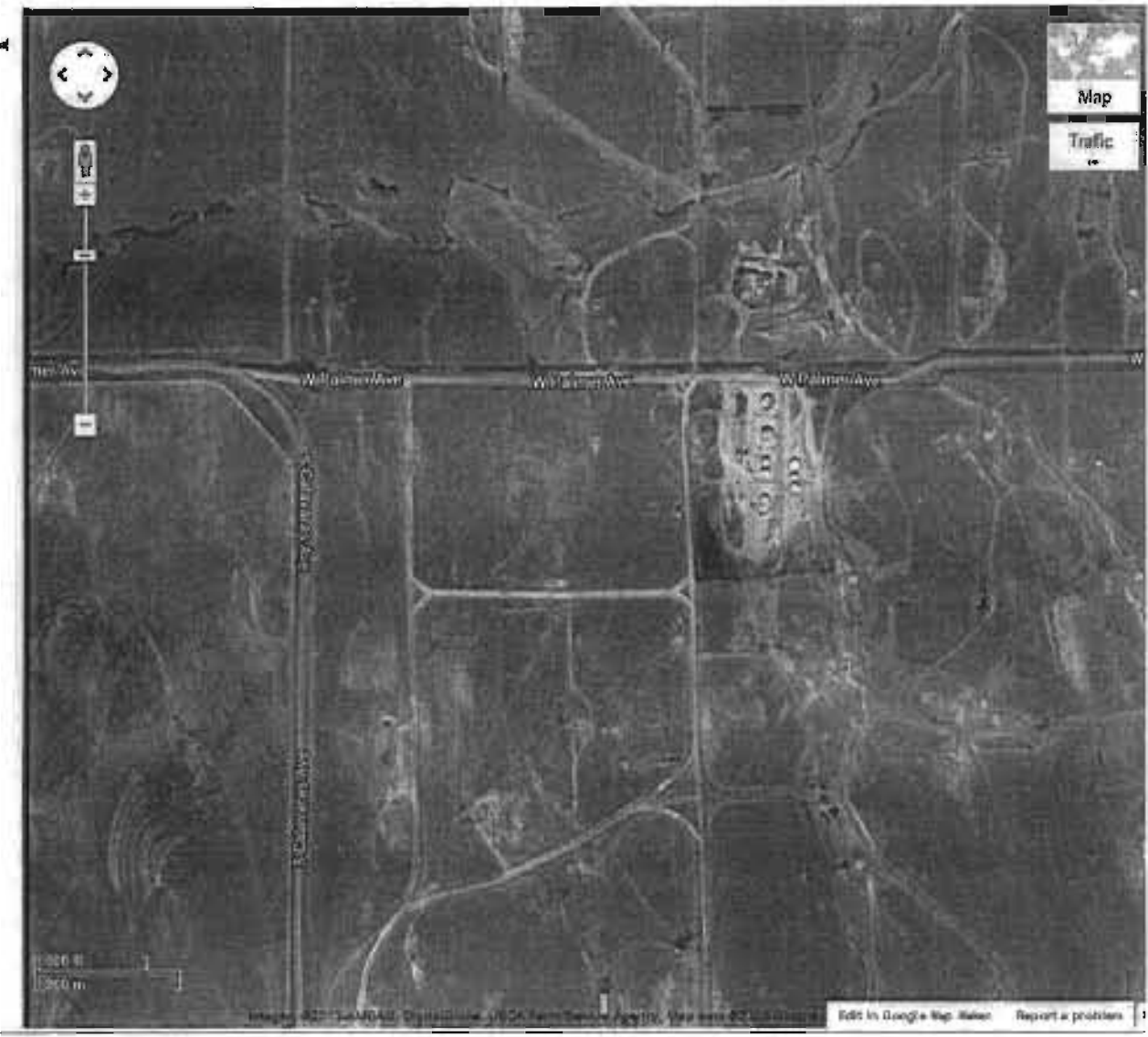
23. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623]
24. 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 Rule 4623]
25. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623]
26. Any component found to be leaking on two consecutive annual inspections is in violation of this rule, even if covered under the voluntary inspection and maintenance program. [District Rule 4623]
27. 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]

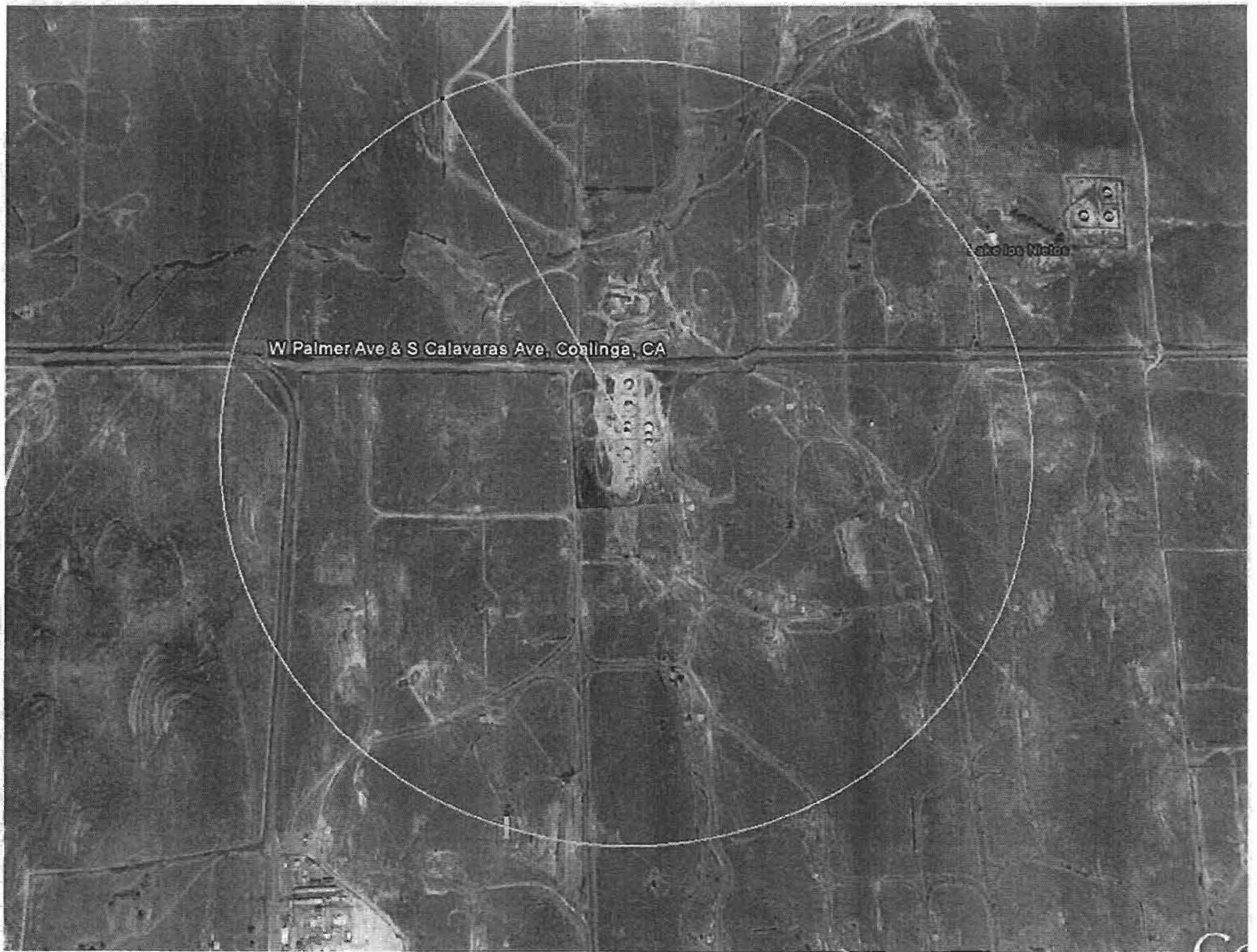
These terms and conditions are part of the Facility-wide Permit to Operate.

ATTACHMENT II
Location Map



Tank Battery 7F





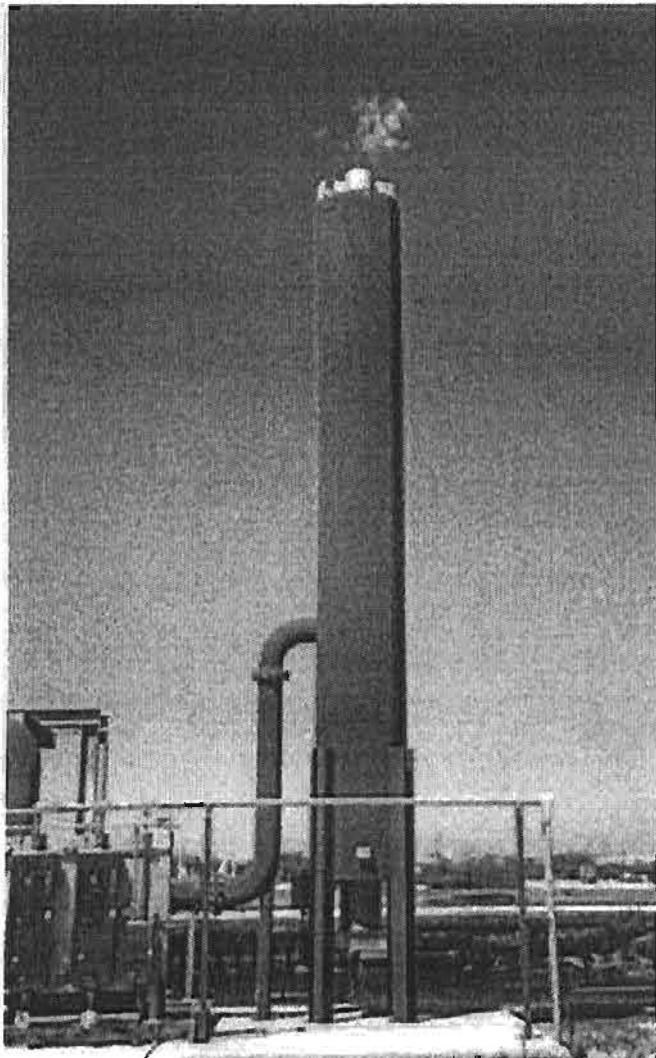
W Palmer Ave & S Calaveras Ave, Coalinga, CA

Lake Los Nietos



ATTACHMENT III
Manufacturer's Specifications on Flare

BUDGET PROPOSAL
JOHN ZINK® Open Flame Vapor
Truck and Tank Combustion Unit



Prepared for:

Tara Brennan

Of

Fluor Corporation

for

Chevron

Coalinga, CA

PREPARED BY *BILL MATTHES*

DATE *MAY 14, 2014*

REVISION *0*

JZ FILE NUMBER *VC-201405-44729-A*



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I. Introduction

John Zink Company is pleased to provide this proposal for a vapor flaring system to be located at the Chevron, Coalinga, CA Facility. The system includes an open flame, air assisted smokeless flare with an automatic pilot and a knockout vessel to collect condensed hydrocarbon prior to entering the flare. Also included with this system is a PLC based Integrated Control System and an equipment skid containing vapor valves, assist gas piping, and pilot piping. This proposal is based on a John Zink Company Standard, we do not have Chevron Specifications. Any specifications applied, may cause the price to increase.

The system is designed to handle vapors displaced from either truck loading or tank filling and breathing.

The air assisted open flame flare will be designed to meet the criteria established for air assisted flares in 40 CFR 60.18. As such the reduction in VOCs can be claimed to be at least 98%. As such the reduction in VOCs can be claimed to be at least 98%. The key elements of meeting 40 CFR 60.18 are that the net heating value of the waste being flared is always at least 300 Btu/scf and that the exit velocity leaving the flare tip is no greater than 54 ft/sec.

The burners are a special design that are recognized as anti-flashback to protect the upstream equipment from a flashback. This is an especially important feature for this application since the vapors may be in the explosive range during loading.

The system will be factory assembled and is given a factory functional test and shipped ready for customer installation. All necessary drawings and detailed instructions for proper installation, start-up, and operation will be provided.

John Zink's combustion capabilities are second to none, and we have literally hundreds of combustion devices in vapor control service worldwide.

Through the execution of hundreds of vapor control projects, John Zink has developed a thorough understanding that our customers value safety, efficiency, and ease of installation, operation and maintenance in their equipment. The design of the proposed VCU incorporates several features which enhance safety, performance and reliability. John Zink also understands that, in addition to high-quality equipment, our customer's value excellence in project execution and service. Purchasing a system from John Zink provides many advantages not limited to the following:

- Experienced design and project management staff dedicated to providing excellent customer service during the execution and installation phases of a project.
- In-house fabrication ability. Because John Zink owns its own 250,000 square foot manufacturing facility, we are able to assemble most systems in our own shop which allows us to better control quality and schedule. We also assemble our control





panels in-house and perform a functional test of the control panel and VCU skids prior to shipment.

- Large service organization. Our factory trained technicians provide both preventative maintenance and emergency call-out assistance 24/7.
- Spare parts inventory for quick turn arounds.
- Portable Emission Control Systems (PECS®) for temporary compliance needs.
- Installation assistance.
- John Zink proprietary anti-flashback burners. John Zink is the only VCU supplier to design and manufacture our own anti-flashback burners.

II. Design Basis

The John Zink® Vapor Combustion System is based on proprietary technology and sound engineering. Terminal loading characteristics and other design data as furnished by the customer are summarized below:

Products Handled	Condensate
Vapor flow to combustion system from truck and tank venting 0 –627 lb/hr	
Maximum Loading Rate into Combustor	13,681 SCFH
Inlet Pressure to combustor inlet	10" W.C.
Vapor Inlet Temperature	0 - 110 °F
Heating Value (max / min)	0 / 954 Btu/scf
Maximum Heat Release.....	13.05 MMBtu/hr
Pilot gas usage (assuming natural gas).....	54 scfh
Assist gas usage (assuming natural gas)	0 scfm ⁽¹⁾
Area Electrical Classification	
Combustor Support Skid.....	Unclassified (Non-Hazardous)
Vapor Combustor.....	Unclassified (Non-Hazardous)
Motor Type	TEFC
Motor Starter Enclosure Type (skid mounted).....	NEMA 3R
Control Panel Enclosure Type (skid mounted)	NEMA 4
Ambient Temperature	25 to 110°F
Earthquake Zone.....	UBC 2000 Zone 0
Wind Velocity.....	110 mph ASCE 7 05
Electrical Power	480 V, 3 Ph, 60 Hz and 120 V, 1 Ph, 60 Hz
Pilot Gas	Natural Gas or Propane @ 30 psig
Instrument Air.....	None Required
Power	480 V /3 ph/ 60 & 120 V /1 ph/ 60

1. With vapors above 300 btu/scf, no assist gas is required.

III. Process Description

The system normally consists of an elevated flare stack, special anti-flashback burner, automatic ignition pilot with continuous monitor, motor operated vapor block valve, detonation arrestor, air-assist blower, piping, instrumentation and master control panel packaged as an assembled unit ready for convenient field installation.

The start-up sequence consists of a short air purge using the air-assist blower to purge the stack of any combustibles prior to pilot ignition. This brief air purge is followed by automatic electronic ignition of the pilot. After pilot ignition, a signal is sent to the loading area that it is safe to start loading. This signal is normally connected to the loading pumps, so that loading shuts off during any fault shutdown.

Product loading of the trucks can begin and a vapor mixture begins to flow from the trucks being loaded to the vapor combustion system. As soon as sufficient flow is available at the combustion system, it will be detected by the pressure monitoring controls which will automatically open the burner safety control valve allowing the air vapor mixture to flow through the detonation arrestor to the burner, where the combustible vapors are ignited by the pilot and burned. The air-assist blower provides partial combustion air and mixing energy to the burner tips to assure smokeless combustion.

The tank venting will occur as described above. The vent line from the truck rack and the tank will be combined into one inlet to the combustor.

The flare stack burner exit is 25 feet above grade which will limit the radiant heat at ground level when flaring the hydrocarbons, however it is recommended that the flare be located on a site that has non-flammable material in the immediate area.

The safety design considerations for a vapor combustion unit used in terminal applications is very important in that the vapors to be burned may contain sufficient air concentration to present flashback potential. The John Zink vapor combustion system provides three (3) levels of flashback protection and prevention. These include:

1. Proprietary anti-flashback burners.
2. Burner safety shutoff motor operated valve.
3. Detonation arrestor with high temperature shutdown switch, which serves as a final backup flashback protection device to minimize the risk for any flashback to reach the loading area.

IV. Performance

The John Zink® Open Flame Vapor Combustion Unit is designed to combust the hydrocarbon vapors from the incoming air/hydrocarbon vapor mixture in order to comply with guaranteed emission limits as stated below.

Guaranteed Hydrocarbon Emissions Level

John Zink Company guarantees the proposed system to achieve the following performance: 98% destruction efficiency and to meet all applicable requirements of Title 40 Code of Federal Regulations Part 60 Section 18 (40 CFR 60.18).

Estimated System Pressure Drop

4 oz estimated at maximum inlet flow conditions. (See Section II, Design Basis)

Utility Requirements

Pilot Gas	21 SCFH Propane @ 4 PSIG or 54 SCFH of Natural Gas @ 7 PSIG per pilot
Assist Gas	Assist gas may be required to assure combustion. Assist gas could be as high as 12 scfm of either natural gas or propane.
Instrument Air	None
Power	120V/1 PH/60 HZ and 480V/3 PH/60 HZ



Performance Guarantee

John Zink Company offers the following performance guarantees for the proposed Vapor Combustion Unit quoted:

98% destruction of all hydrocarbons that enter the stack and all applicable requirements of Title 40 Code of Federal Regulations Part 60 Section 18 (40 CFR 60.18).

The above stated performance guarantee is contingent upon the following conditions or clarifications:

1. The equipment is transported, stored, installed, operated, and maintained in compliance with manufactures' operating and maintenance guidelines (including operation records), accepted good industry practices, and within conditions as defined in "Design Basis" of this proposal.
2. Volatile organic compounds are considered to be those hydrocarbons normally found in natural gasoline vapors displaced when transports are loaded.
3. Determination of hydrocarbon emissions shall be measured according to the EPA Reference Methods 2A, 2B, 25A & 25B or any other equivalent test method acceptable by John Zink. Emissions are to be averaged over a 6 hour test period.
4. This VCU is designed to control only hydrocarbon emissions that pass through the vapor control system.
5. Assist gas may be required to meet performance guarantee. John Zink reserves the right to increase the stack temperature limits using assist gas.
6. The process guarantees apply only to the time period when loading is occurring. System purge, stack heat up, etc. are not included as part of the process performance test.
7. The performance guarantee as stated above is the only performance guarantee offered. Values stated for other parameters are good faith estimates and not to be construed as performance guarantees.
8. Any defects are reported immediately to John Zink.
9. Performance testing shall be conducted by customer within sixty (60) days after the equipment has been placed in operation. John Zink Company shall be notified in writing prior to the test so that their representative may be present. It shall be the customer's responsibility to maintain equipment in good working order prior to and during the testing. Performance testing is the Customer's

responsibility. However, if due to no fault of John Zink Company the equipment cannot be put into operation or for other reasons not tested within 12 months after equipped is ready to ship, then the Performance Guarantee shall be deemed to have been met for any and all purposes.

10. Should the equipment not meet the Performance Guarantee, John Zink and the Customer shall jointly determine, in accordance with recognized engineering procedures and practices, whether the failure is a result of a design deficiency. If it is established that the equipment failed to meet the Performance Guarantee and such failure is due to design deficiency, John Zink will take such action as it may determine necessary to correct the equipment to meet such guarantees. Customer agrees to give John Zink free and necessary access to the equipment when requested for the purpose of making correction.
11. The Performance Guarantees shall terminate 18 months after the date that the equipment is available for shipment or one year after start-up, whichever occurs first (the "Guarantee Period").

V. Equipment Specification

The proposed vapor combustion system is provided in modular packages to allow for convenient field installation and to provide adequate equipment spacing for ease of operation and maintenance.

The flare vapor piping and assist gas injection skid will be furnished complete with a knockout tank, the vapor isolation valve, the pilot and assist gas piping, and a local panel rack for the control panel and assist air motor starter. (Refer to the attached P&ID for details). A shop functional test of the packaged assembly is included.

The air assisted flare is shop assembled with the riser pipes, burners, pilots, air plenums, and legs installed.

The equipment is described in detail below. All sizes, dimensions and specifications are preliminary and may be changed in final engineering.

Flare Equipment Skid Assembly

The flare support skid assembly contains the main components as described below installed, pre-wired with a shop functional test prior to shipment.

Vapor Piping System

The interconnecting piping from the truck rack (furnished by others) will flange up the John Zink skid with a 4" 150# flange at skid edge. Vapor piping will have a commercial blast surface preparation (SSPC-SP-6) and a zinc rich primer (one coat, 2.0-4.0 mils DFT).

Components with a manufacturer's finish coat will not be painted. Components that could be damaged by blasting such as valves will be hand-tool cleaned (SSPC-SP-2) instead of blasted. Sherwin-Williams products are used.

Vapor Isolation

A 4" 150 # wafer style high performance butterfly valve with a motor operator is located at the inlet to the flare. The valve is allowed to open only when the flare is operable and pilot is proven. The valve closes during any safety fault.

Detonation Arrester

For flashback protection a 4" detonation arrester suitable for Group "D" vapors will be used. John Zink will furnish a high temperature switch that will be installed on burner side face of detonation arrester element to automatically shutdown the vapor flow from the rack should high temperature be sensed. A pressure gauge is installed on each side of the detonation arrester to check for plugage.

Assist Gas System Piping

A 3/4" carbon steel pilot gas system will be provided to control the assist gas flow including a strainer, regulator, pressure gauge, shutdown valve, and manual flow control valve. Piping will have NPT connections with appropriately positioned unions to facilitate maintenance. The pilot gas system will have a commercial blast surface preparation (SSPC-SP-6) and zinc rich primer (one coat, 2.0-4.0 mils DFT).

Components with a manufacturer's finish coat will not be painted. Components that could be damaged by blasting such as valves will be hand-tool cleaned (SSPC-SP-2) instead of blasted. Sherwin-Williams products are used.

Pilot Gas System Piping

A 3/4" carbon steel pilot gas system will be provided to control the pilot gas flow including a strainer, regulator, pressure gauge, shutdown valve, and manual valves. Piping will have NPT connections with appropriately positioned unions to facilitate maintenance. The pilot gas system will have a commercial blast surface preparation (SSPC-SP-6) and zinc rich primer (one coat, 2.0-4.0 mils DFT).

Components with a manufacturer's finish coat will not be painted. Components that could be damaged by blasting such as valves will be hand-tool cleaned (SSPC-SP-2) instead of blasted. Sherwin-Williams products are used.

Control Panel

The John Zink control panel will consist of a NEMA 4 enclosure mounted on panel rack that is attached to the flare equipment skid. The panel is suitable for unclassified areas and contains:

First out annunciator with the following indications :

- System power on
- Pilot flame proved
- Pilot flame failure
- Remote emergency shutdown
- High temperature detonation arrester shutdown
- High knockout vessel level alarm & shutdown
- Remote Emergency Shutdown (Signal by others)

GE 9030 solid state programmable controller.

Adjustable space heater in master panel enclosure.

Terminal connections in master control panel for customer connections:

- Remote system start
- Permissive to blowdown
- Remote emergency shutdown

- Remote alarm

Assist Air Blower Motor Starter

A 3 HP, 460 Volts 3 Phase NEMA 3R motor starter for the assist air blower will be located in a NEMA 3R enclosure mounted on panel rack that is attached to the flare equipment skid. The motor starter is suitable for unclassified non-hazardous areas.

Flare Equipment Skid

The structural steel skid will be fabricated in accordance with AWS D1.1 and will be constructed of A36 carbon steel. The skid is approximately 2' 2" wide x 7 feet long.

The electrical design and construction is in accordance with NFPA-70 of the NEC, except for Article 515, Table 515-2.

All electrical devices on the skid as shown on attached P&ID are suitable for an unclassified area code and will be shop wired using galvanized conduit.

Miscellaneous Flare Equipment Skid Devices

The system includes additional devices items as follows:

1. Pilot gas pressure regulator and automatic block valve.
2. Assist gas pressure regulator and automatic block valve
3. Assist gas restriction orifice
4. Pilot monitoring thermocouple and low temperature switch.
5. Detonation arrester high temperature switch.
6. Pilot ignition transformer.
7. Various hand valves, pressure gauges, strainers, etc as shown on attached P&ID.

Elevated Vapor Flare

Process design

The flare is designed to handle the vapor from both truck and tank venting up to 627 lb/hr or a maximum heat release of 13.05 MMBtu/hr.

Mechanical Design

The self-supported flare has an overall height of 25 feet. Lifting lugs are provided to simplify the erection.

Material of construction is A-36 carbon steel except for the upper 12" of the riser stack which constructed from Type 304 stainless steel.

Welding per AWS-D1.1. No testing or x-ray is included



The structural design is as follows

- Earthquake UBC 2000 Zone 0
- Wind Velocity ASCE 7-05 100 mph

The carbon steel portion of the flare has a commercial-blast surface preparation (SSPC-SP-6) and zinc-rich primer (one coat, 2.0-4.0 mils DFT).

Anti-flashback Vapor Burner

The flare will use one 8" stainless steel anti-flashback burner. This proprietary burner design helps prevent flashbacks into the vapor piping by using technology similar to that used in flame and detonation arrestors.

Energy Efficient Pilot

One (1) self-inspiration energy efficient Zeus pilot complete with automatic electronic ignition. The pilot is designed to utilize propane or natural gas for fuel. The pilot inspirates ambient air and mixes it with fuel gas to provide a pre-mixed stream to the tips. Fuel gas use is approximately 54 scfh due to the high efficiency design. An automatic electronic ignition assembly is provided

Assist Air Blower

One (1) tube-axial air blower complete with 3 HP, 480 volt/3 PH/60 cycle TEFC motor and manual damper. The air assist blower provides partial combustion air and sufficient mixing energy to assure smokeless combustion. The forced air also reduces thermal radiation, shortens flame length and, by shaping the flame, extends burner life.

Flare Instrumentation (nonhazardous classification)

A thermocouple monitors the pilot to ensure that it remains lit.

Flare System Control Operation

Purge, Pilot Ignition and Standby:

When the PLC receives a Start signal, the assist air blower starts. After the purge is complete, the blower stops, the pilot gas shutdown valve opens and the ignition transformers initiate spark at the pilot tips to ignite the pilot gas. If the pilot flame is confirmed by the thermocouple monitoring the pilot, the PLC sends a flare standby signal to the customer. In the Standby mode the flare is nearly ready to receive vapors but will use very little fuel gas. If the pilot flame is not confirmed by the thermocouple, the system pauses and then retries. If the pilot flames are not confirmed within the determined number of tries, the system will shut down on Pilot Failure.

Normal Operation:

With unit in the standby mode, the automatic vapor block valve is allowed to open. The pressure monitoring system opens and closes the valve. Normally the valve will open once the pressure in the waste gas line reaches 4" W.C. and closes if the pressure falls to 0.5" W.C.

Normal Shutdown:

When the Start signal is removed, the assist air blower stops, the pilot gas shutdown valve closes, and the PLC removes the Standby signal and closes the automatic vapor and assist gas valves.

Weight (Estimated)

Total System Weight (operational).....	3,500 pounds
Stack (operational).....	2,200 pounds
Skid (operational).....	1,300 pounds

Options

In the discussion that follows some optional features are offered. Each of the optional features offered are identified by a number and the pricing of each option is included in the Commercial Section of this proposal.

1. Alarm Horn

One (1) alarm horn to sound upon shutdown of the vapor combustion system. The horn is conveniently mounted on the control panel and is loud enough to alert terminal personnel of a safety shutdown. This horn is suitable for a non-hazardous area.

2. Flame Shroud

One (1) 5' O.D. X 5' O.A.H. carbon steel burner shroud to partially shield flame. Shroud will be lined with 1" thick ceramic refractory. It is estimated that the shroud will conceal 90% of the visible flames. Picture of stack with shroud shown on page 3 of this proposal.

3. Auxiliary Outlet

One (1) 110 volt auxiliary outlet receptacle.

4. Temperature Recorder

One (1) digital chart recorder to record stack pilot temperature, pilot "on" and waster gas valve open/closed.

5. Pilot Gas Low Pressure Shutdown

One (1) pilot gas low-pressure switch to shutdown the unit in case of low pilot gas pressure.

6. Pilot Gas High Pressure Shutdown

One (1) pilot gas high-pressure switch to shutdown the unit in case of high pilot gas pressure.

7. Underwriters Laboratories Classification

John Zink Company is dedicated to ensuring the highest level of quality and safety standards in its products. This performance level is reflected in all products and provides the opportunity to apply the UL listing symbol for Industrial Control Panels on motor starters and a UL classification symbol of the control panels.

VI. Commercial

Pricing, Delivery, Terms

Budget Price

The Budget Price (all prices are in US Dollars) for the John Zink Vapor Combustion System proposed herein includes design and fabrication. The sales price excludes freight and handling to job site, field installation, commissioning (start-up) services, applicable taxes, fees, permits, or any other charges.

Price for VCU with all standard features, \$121,573

Price Adder

Option Number & Description

1.	Alarm Horn	\$773
2.	Flame Shroud	\$8,500
3.	Auxiliary Outlet	\$325
4.	Temperature Recorder	\$6,700
5.	Pilot Gas Low Pressure Switch	\$1,260
6.	Pilot Gas High Pressure Switch	\$1,260
7.	Underwriters Laboratories Classification	\$2,150

One (1) hard copy and three (3) CD electronic copies of Installation/Operation/Maintenance Manuals are included. Extra copies ordered after the original manuals are printed will be supplied at \$1,000.00 per copy. One (1) electronic set of customer drawings will be furnished in AutoCAD DWF format or PDF file format. Hard copies will be furnished on request.

Price is based on Buyer's acceptance of attached John Zink Company Standard Terms of Sale.

Except as otherwise noted in this proposal, the prices quoted are valid for thirty (30) days from the date of the proposal. Should delivery be delayed past the quoted delivery by acts of Buyer or its agent, the quoted price will be subject to escalation.

Based on approval of credit, invoices will be submitted for payment as follows:

- 10% of net price on receipt of purchase order
- 60% of net price six (6) weeks after receipt of order
- 30% of net price when notified that the unit is ready for shipment.

Payments for invoices are due net 30 from the date of invoice.

A guaranteed form of payment such as a letter of credit may be required.

Trade Terms are FCA Point of Manufacture. John Zink will make shipping arrangements and prepay freight on behalf of customer. Freight and handling costs will be added to customer invoices. Risk of loss during shipment rests with customer.

SCHEDULE

The estimated readiness to ship is approximately 16 weeks after receipt of mutually agreed upon order. If drawing review and approval by customer is required this will extend the delivery. A detailed schedule will be provided after receipt of such order.

COMMISSIONING/START-UP

Commissioning (start-up) service rates are per the attached Standard Technical Assistance Agreement. Start-up services by a John Zink representative are required to retain the limited warranty. Start-up performed by others voids both the limited warranty and the performance guarantee.

VII. Owner Requirements

The owner is required to install the Vapor Combustion unit in a **NON-HAZARDOUS LOCATION.**

1. Provide suitable skid and stack foundation, which will completely support the structural members.
2. Unload and set vapor combustor skid and stack on foundation.
3. Install items removed for shipping.
4. Furnish and connect vapor line from loading facilities.
5. The owner is responsible for the following field wiring and conduit from the control panel to:
 - Electrical items on the combustion stack.
 - The loading facilities.
6. Corrections of minor misfits by moderate amount of reaming, cutting, bending, welding, etc. are a part of fitup and installation. It is the intent of John Zink Company to minimize errors leading to misfits. If there are changes requiring more than moderate corrections, contact John Zink Company for instructions.
7. Provide natural gas or propane to VCU for pilot gas and assist gas at specified flow rates and pressure of 25 psig.
9. Assure no low spot traps in vapor piping that would trap liquid.
10. Provide grounding for unit.

VIII. Scope of Supply Summary

The following Scope of Supply is to confirm items provided by John Zink in our proposal. The attached Scope of Supply is provided to help the customer compare proposals and should include the minimum safety features included in any design.

Stack

Stack Size:	12" OD x 25' OAH
No. of Burners	One (1) 8" OD x 6" thick element
Anti-flashback Burner:	Yes
Burner Manufacture:	John Zink
Sandblasted:	Yes
Coated:	Zinc Primer

Pilot

No. of Pilot(s):	One
Pilot Manufacture:	John Zink
Adjustable Pilot:	Yes
Pilot Monitor:	Thermocouple

Assist Air/Purge Blower

Assist Air/Purge Blower Provided:	Yes
Blower Horsepower:	3 HP

Safety Valve

Safety valve provided:	Yes
Valve size:	4"
Actuator:	Electric
Quantity:	1

Detonation Arrestor

High Temperature Shutdown:	Yes
Size:	4"
Quantity:	One

Piping

Waste Gas Piping Size:	4"
Piping provided between skid and stack:	Yes

Control Panel

Panel Rack Provided:	Yes
PLC Control:	Yes
Automatic Start Feature:	Yes



Panel Heater:	Yes
Combination Motor Starter:	Yes
Panel Enclosure Rating:	NEMA 4
Horn:	Optional

Experience	
Number of units sold	Over 1,200



IX. Attachments

The following attachments are contained in this section:

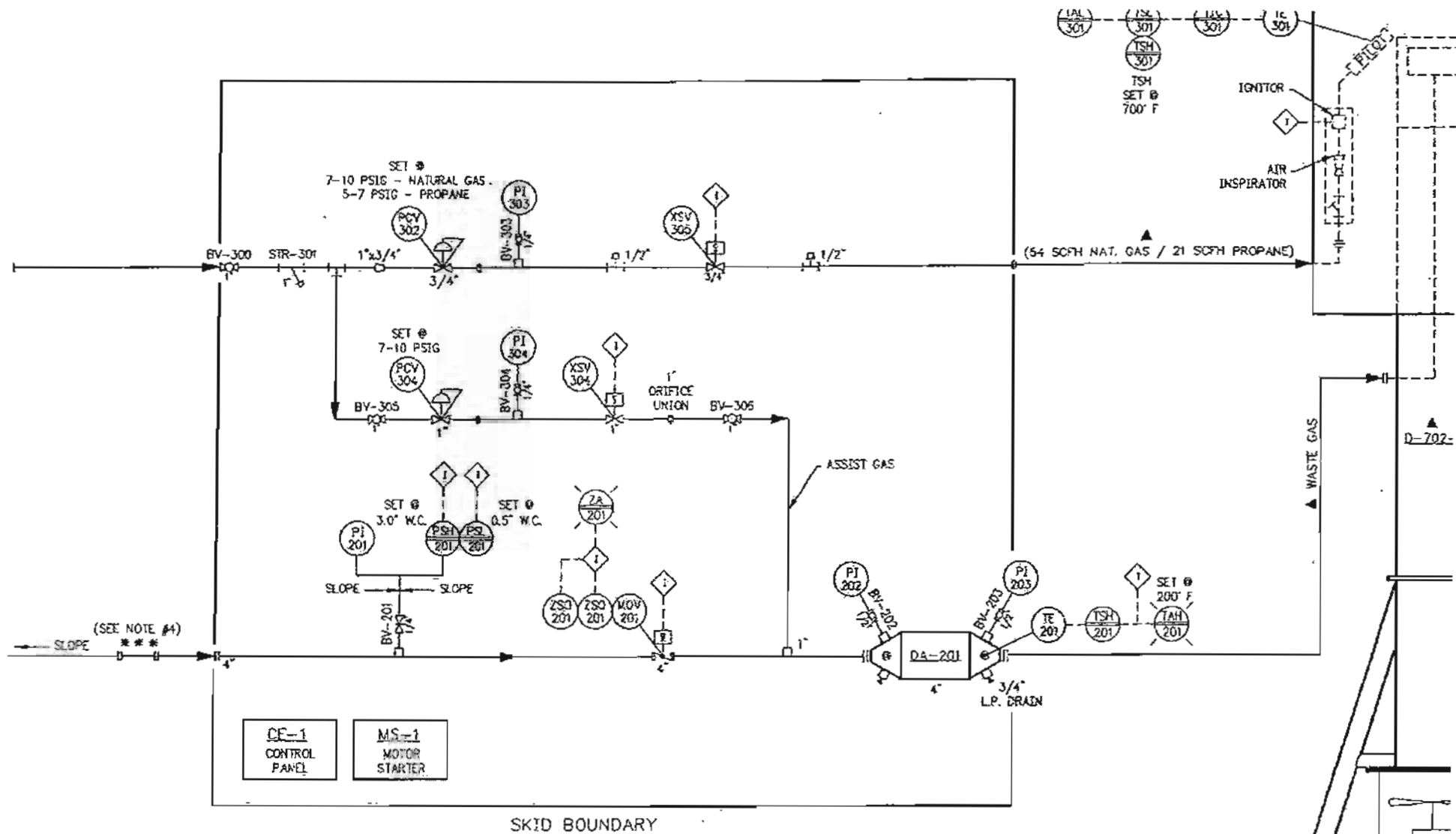
- A. General Terms and Conditions of Sale
- B. Technical Assistance Agreement
- C. Open Flame Preliminary Layout & P&IDs
- D. Brochures



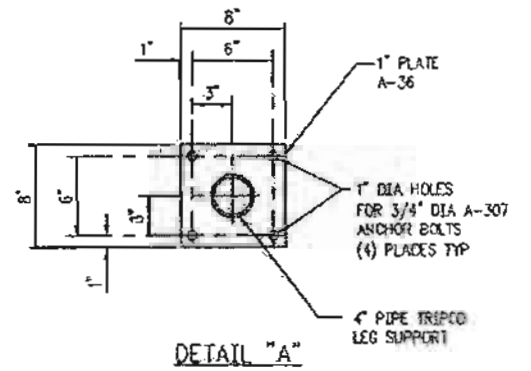
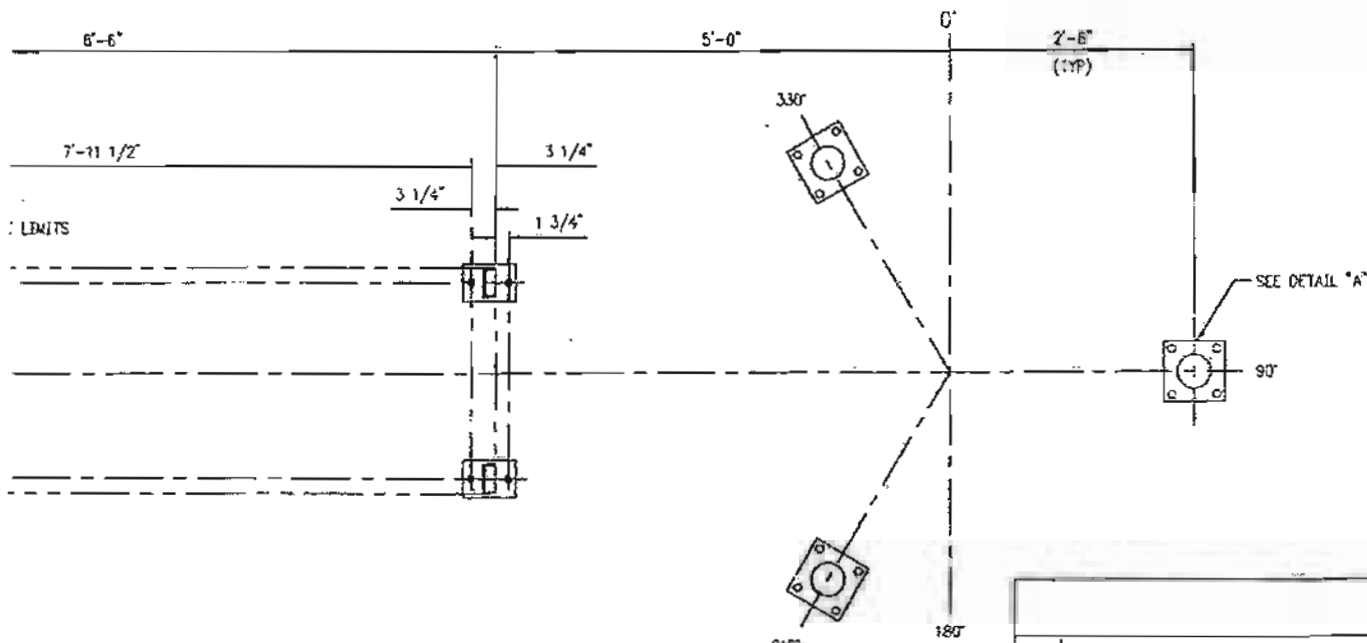
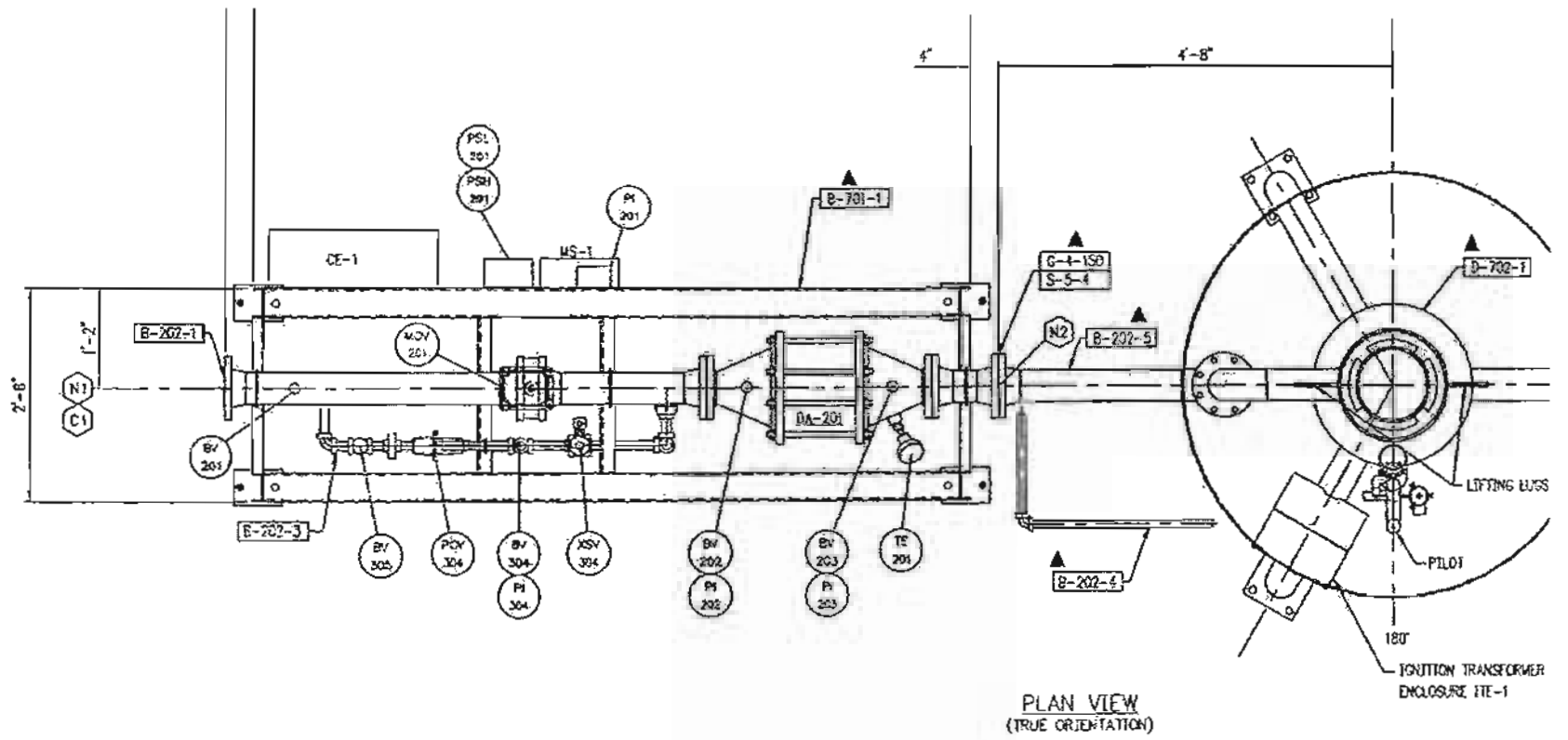
**ATTACHMENT A
GENERAL TERMS AND CONDITIONS OF SALE**

This proposal is subject in all regards to the General Terms and Conditions of Sale attached hereto, which are hereby incorporated herein.

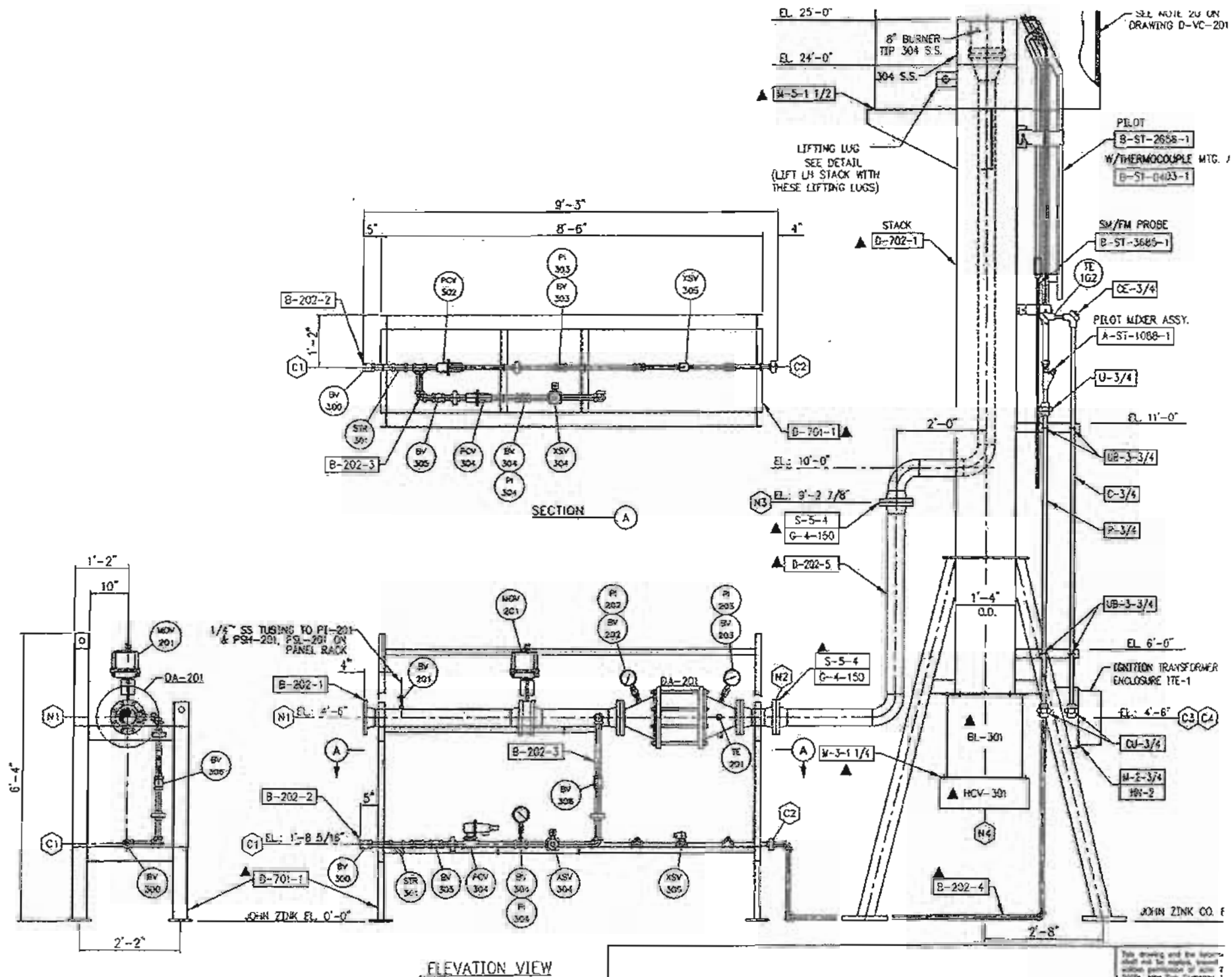
ATTACHMENT C
OPEN FLAME PRELIMINARY LAYOUT & P & ID



This drawing and the items
 which are to be replaced, should
 be destroyed when the item
 is replaced. John Stark Company.



This drawing and the information
 shall not be copied, stored,
 or used in any manner without the
 written permission of John E.
 3000, John E. Company, L.P.
 FOR



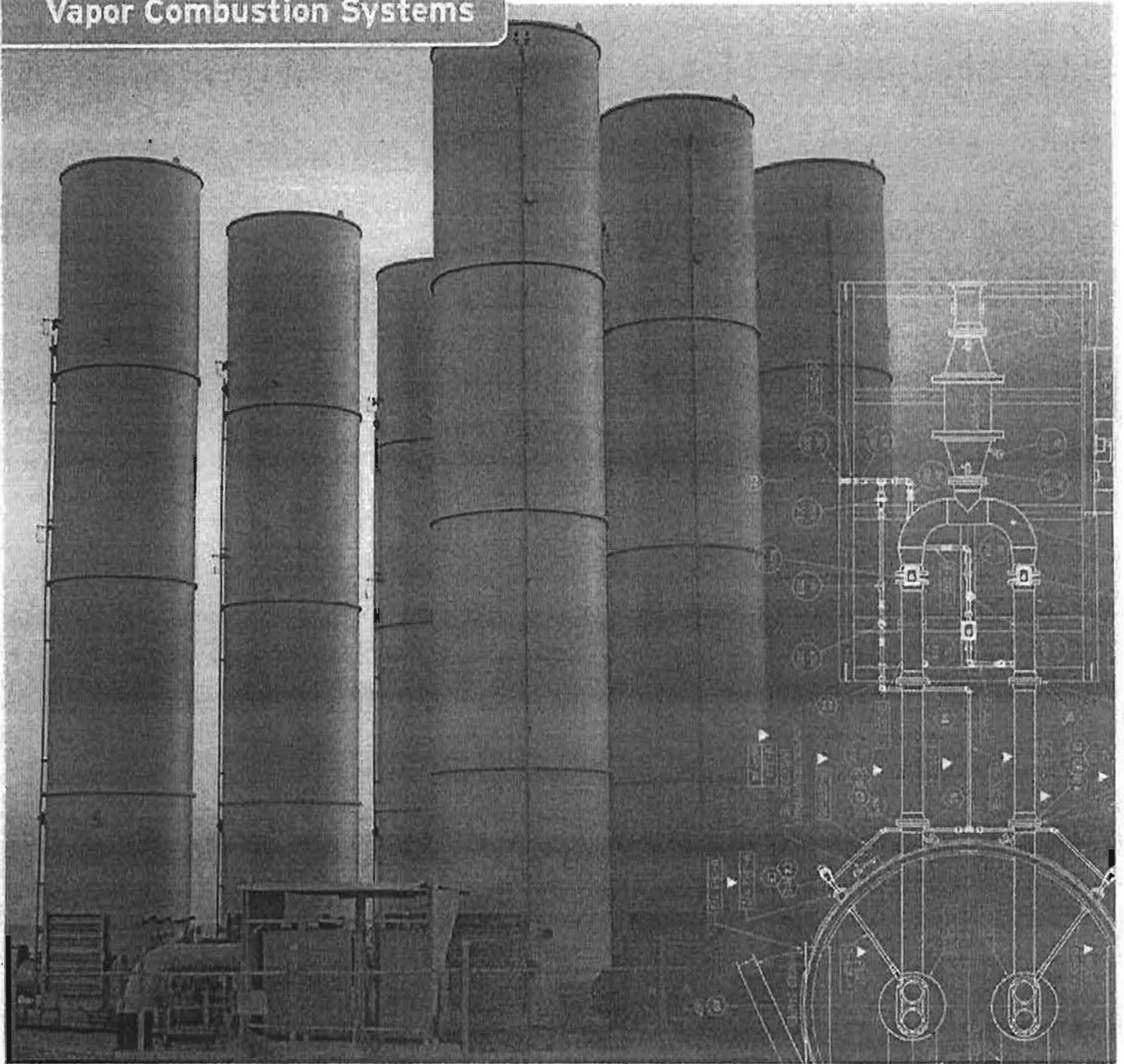
ELEVATION VIEW

This drawing and the assembly shall not be copied, reprinted, or otherwise reproduced without the written permission of John Zink Co. F.



**ATTACHMENT D
BROCHURES**

Vapor Combustion Systems



1

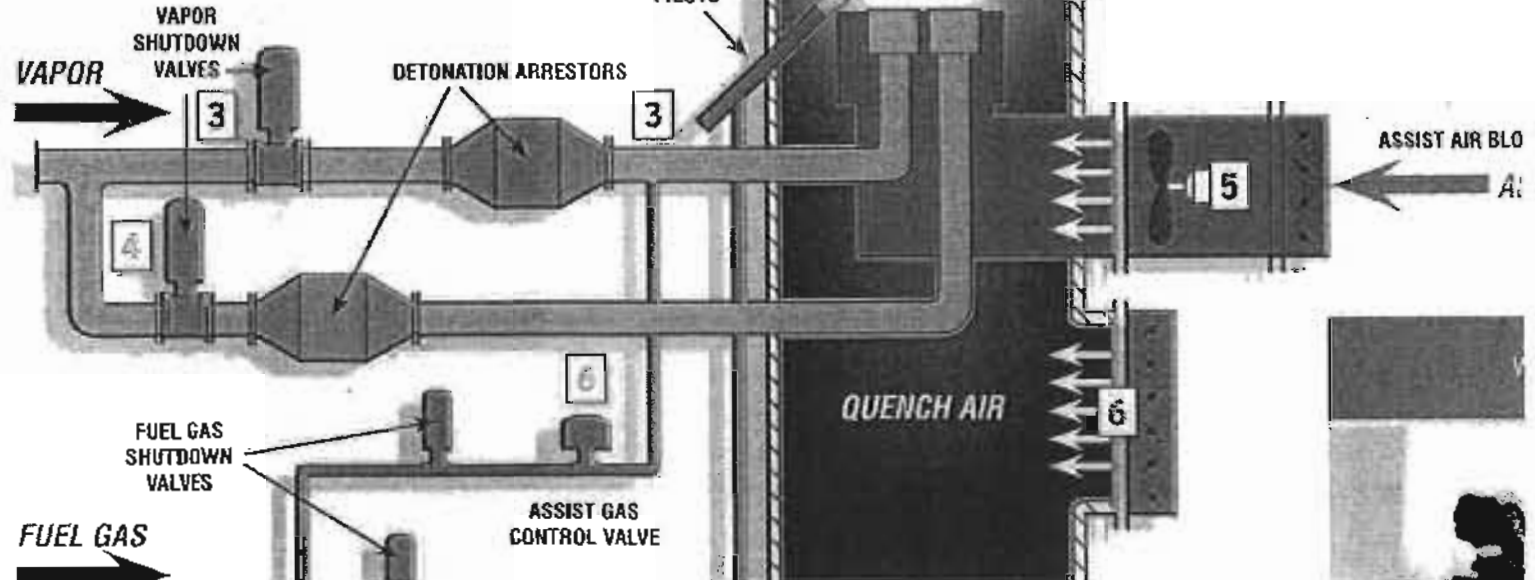
A local or remote start signal is received, starting the assist air blower to purge the combustor of any existing combustibles.

2

After the purge, the pilot igniter is fired by the control system in order for the operator to proceed.

3

Vapors pass through the vapor shutdown valve and detonation arrestor to be introduced into the combustor through the anti-flashback burners and are ignited by a pilot.



4

5

6

ENCLOSED COMBUSTOR

SAMPLE PORTS

THERMOCOUPLE

CERAMIC REFRACTOR

FLAME SCANNERS

STACK FLANGE

ANTI-FLASHBACK BURNERS

SIGHT PORTS

PILOTS

VAPOR SHUTDOWN VALVES

DETONATION ARRESTORS

VAPOR

ASSIST AIR BLOWER

ASSIST AIR

FUEL GAS SHUTDOWN VALVES

FUEL GAS

ASSIST GAS CONTROL VALVE

QUENCH AIR

ufacturing, service and support, and more. As a
thy Combustion VCU to deliver where it counts:

re flame while combusting hydrocarbon vapors in

omption and achieves higher destruction efficiencies.

alternative when a visible flame and its resultant
open-flame combustors are capable of destruction

ashback protection. In marine loading applications,

is a liquid seal exemption based on our proprietary

struction of explosive mixtures that are unsuitable for

manufactured at the John Zink Hamworthy Combustion

vide stable combustion over a wide range of flows

manufactured at John Zink Hamworthy Combustion,

orce for the vapors.

ustion.

stillate vapors can reduce or eliminate auxiliary fuel

in rich, enriching vapors when lean, and averaging

el use for inert vapors, especially when vapors

ean vapors can reduce fuel gas usage.

air blowers reduce the amount of fuel gas required

requirements to be met at lower operating

n.



The John Zink Hamworthy Combustion worldwide service organization is the largest team of its kind. Our service technicians are trained in the latest technologies to perform upgrades and retrofits, to troubleshoot operations, and to help plan your next future available on emergency call-out 24 hours a day, 7 days a week. And to keep you up-to-date on retrofitting or maintenance, we offer equipment rental including the PECS® (Portable Emergency Combustion System) a self-contained, trailer-mounted vapor combustor that ensures stable, smokeless combustion and temperature control over a wide range of process conditions.

We also provide comprehensive vapor control courses held at the John Zink Institute™. These courses help vapor control operators and engineers optimize their equipment and address issues at their facilities.

Bundle a PECS rental with other John Zink services such as installation, start-up, on-site operator assistance and training, or dismantling to save both time and money.



**JOHN ZINK
HAMWORTHY
COMBUSTION**

North America
1-800-368-7262

John Zink Combustion, LLC
1900 East Apple Street
Tulsa, Oklahoma 74117
tulsazink.com

Europe
Middle East
Africa
Regional Representative

John Zink Combustion, LLC
Laxenburg, Austria
Toll-free phone in Europe
Lax@zink.com

Asia-Pacific
Regional Representative

John Zink Combustion, LLC
10000 South 10th Street, Suite 100
Tulsa, Oklahoma 74117
tulsazink.com

ATTACHMENT IV

Fugitive Emissions Calculations

Chevron USA C-2872

Permit Unit # C-2872-64-1 Oil Storage Tank T-110 and LACT

EPA Protocol for Equipment Leak Emission Estimate

*Table 2-4. Oil and Gas Production Operations
Average Emission Factors*

Weight percentage of VOC in the total organic compounds in gas (neglect non-organics)? 100 %
 Weight percentage of VOC in the total organic compounds in oil (neglect non-organics)? 100 %

Equipment Type	Service	Screening Value EF - TOC		Component Count	VOC emissions (lb/day)
		(kg/hr/source)	(lb/day/source)		
Valves	Gas	4.5E-03	2.381E-01	15	3.57
	Heavy Oil	8.4E-06	4.445E-04	0	0.00
	Light Oil	2.5E-03	1.323E-01	0	0.00
	Water/Oil	9.8E-05	5.185E-03	0	0.00
Pump Seals	Gas	2.4E-03	1.270E-01	0	0.00
	Heavy Oil	N/A	N/A	0	N/A
	Light Oil	1.3E-02	6.878E-01	2	1.38
	Water/Oil	2.4E-05	1.270E-03	0	0.00
Others	Gas	8.8E-03	4.656E-01	3	1.40
	Heavy Oil	3.2E-05	1.693E-03	0	0.00
	Light Oil	7.5E-03	3.968E-01	0	0.00
	Water/Oil	1.4E-02	7.408E-01	0	0.00
Connectors	Gas	2.0E-04	1.058E-02	0	0.00
	Heavy Oil	7.5E-06	3.968E-04	0	0.00
	Light Oil	2.1E-04	1.111E-02	84	0.93
	Water/Oil	1.1E-04	5.820E-03	0	0.00
Flanges	Gas	3.9E-04	2.064E-02	18	0.37
	Heavy Oil	3.9E-07	2.064E-05	0	0.00
	Light Oil	1.1E-04	5.820E-03	0	0.00
	Water/Oil	2.9E-06	1.534E-04	0	0.00
Open-ended Lines	Gas	2.0E-03	1.058E-01	0	0.00
	Heavy Oil	1.4E-04	7.408E-03	0	0.00
	Light Oil	1.4E-03	7.408E-02	0	0.00
	Water/Oil	2.5E-04	1.323E-02	0	0.00

Total VOC Emissions = 7.6 lb/day

Chevron USA C-2872

Permit Unit # C-2872-64-1 TVR emission calcs

EPA Protocol for Equipment Leak Emission Estimate

Table 2-4. Oil and Gas Production Operations

Average Emission Factors

Weight percentage of VOC in the total organic compounds in gas (neglect non-organics)? 100 %
 Weight percentage of VOC in the total organic compounds in oil (neglect non-organics)? 100 %

Equipment Type	Service	Screening Value EF - TOC		Component Count	VOC emissions (lb/day)
		(kg/hr/source)	(lb/day/source)		
Valves	Gas	4.5E-03	2.381E-01	54	12.86
	Heavy Oil	8.4E-06	4.445E-04	0	0.00
	Light Oil	2.5E-03	1.323E-01	0	0.00
	Water/Oil	9.8E-05	5.185E-03	0	0.00
Pump Seals	Gas	2.4E-03	1.270E-01	0	0.00
	Heavy Oil	N/A	N/A	0	N/A
	Light Oil	1.3E-02	6.878E-01	2	1.38
	Water/Oil	2.4E-05	1.270E-03	0	0.00
Others	Gas	8.8E-03	4.656E-01	12	5.59
	Heavy Oil	3.2E-05	1.693E-03	0	0.00
	Light Oil	7.5E-03	3.968E-01	0	0.00
	Water/Oil	1.4E-02	7.408E-01	0	0.00
Connectors	Gas	2.0E-04	1.058E-02	0	0.00
	Heavy Oil	7.5E-06	3.968E-04	0	0.00
	Light Oil	2.1E-04	1.111E-02	160	1.78
	Water/Oil	1.1E-04	5.820E-03	0	0.00
Flanges	Gas	3.9E-04	2.064E-02	80	1.65
	Heavy Oil	3.9E-07	2.064E-05	0	0.00
	Light Oil	1.1E-04	5.820E-03	0	0.00
	Water/Oil	2.9E-06	1.534E-04	0	0.00
Open-ended Lines	Gas	2.0E-03	1.058E-01	0	0.00
	Heavy Oil	1.4E-04	7.408E-03	0	0.00
	Light Oil	1.4E-03	7.408E-02	0	0.00
	Water/Oil	2.5E-04	1.323E-02	0	0.00

Total VOC Emissions = 23.2 lb/day

Chevron USA C-2872

Project # , Permit Unit # C-2872-65-1 Drain Tank

EPA Protocol for Equipment Leak Emission Estimate
 Table 2-4. Oil and Gas Production Operations
 Average Emission Factors

Weight percentage of VOC in the total organic compounds in gas (neglect non-organics)? 100 %
 Weight percentage of VOC in the total organic compounds in oil (neglect non-organics)? 100 %

Equipment Type	Service	Screening Value EF - TOC		Component Count	VOC emissions (lb/day)		
		(kg/hr/source)	(lb/day/source)				
Valves	Gas	4.5E-03	2.381E-01	9	2.14	7	20%
	Heavy Oil	8.4E-06	4.445E-04	0	0.00		
	Light Oil	2.5E-03	1.323E-01	0	0.00		
	Water/Oil	9.8E-05	5.185E-03	0	0.00		
Pump Seals	Gas	2.4E-03	1.270E-01	0	0.00		
	Heavy Oil	N/A	N/A	0	N/A		
	Light Oil	1.3E-02	6.878E-01	0	0.00		
	Water/Oil	2.4E-05	1.270E-03	0	0.00		
Others	Gas	8.8E-03	4.656E-01	4	1.86	3	20%
	Heavy Oil	3.2E-05	1.693E-03	0	0.00		
	Light Oil	7.5E-03	3.968E-01	0	0.00		
	Water/Oil	1.4E-02	7.408E-01	0	0.00		
Connectors	Gas	2.0E-04	1.058E-02	0	0.00	20	20%
	Heavy Oil	7.5E-06	3.968E-04	0	0.00		
	Light Oil	2.1E-04	1.111E-02	24	0.27		
	Water/Oil	1.1E-04	5.820E-03	0	0.00		
Flanges	Gas	3.9E-04	2.064E-02	30	0.62	25	20%
	Heavy Oil	3.9E-07	2.064E-05	0	0.00		
	Light Oil	1.1E-04	5.820E-03	0	0.00		
	Water/Oil	2.9E-06	1.534E-04	0	0.00		
Open-ended Lines	Gas	2.0E-03	1.058E-01	0	0.00		
	Heavy Oil	1.4E-04	7.408E-03	0	0.00		
	Light Oil	1.4E-03	7.408E-02	0	0.00		
	Water/Oil	2.5E-04	1.323E-02	0	0.00		

Total VOC Emissions = 4.9 lb/day

Chevron USA C-2872

Project # , Permit Unit # C-2872-66-1 3 phase separator V-100

EPA Protocol for Equipment Leak Emission Estimate

Table 2-4. Oil and Gas Production Operations

Average Emission Factors

Weight percentage of VOC in the total organic compounds in gas (neglect non-organics)? 100 %
 Weight percentage of VOC in the total organic compounds in oil (neglect non-organics)? 100 %

Equipment Type	Service	Screening Value EF - TOC		Component Count	VOC emissions (lb/day)		
		(kg/hr/source)	(lb/day/source)				
Valves	Gas	4.5E-03	2.381E-01	33	7.86	26	20%
	Heavy Oil	8.4E-06	4.445E-04	0	0.00		
	Light Oil	2.5E-03	1.323E-01	0	0.00		
	Water/Oil	9.8E-05	5.185E-03	0	0.00		
Pump Seals	Gas	2.4E-03	1.270E-01	0	0.00	0	20%
	Heavy Oil	N/A	N/A	0	N/A		
	Light Oil	1.3E-02	6.878E-01	0	0.00		
	Water/Oil	2.4E-05	1.270E-03	0	0.00		
Others	Gas	8.8E-03	4.656E-01	4	1.86	3	20%
	Heavy Oil	3.2E-05	1.693E-03	0	0.00		
	Light Oil	7.5E-03	3.968E-01	0	0.00		
	Water/Oil	1.4E-02	7.408E-01	0	0.00		
Connectors	Gas	2.0E-04	1.058E-02	0	0.00	130	20%
	Heavy Oil	7.5E-06	3.968E-04	0	0.00		
	Light Oil	2.1E-04	1.111E-02	156	1.73		
	Water/Oil	1.1E-04	5.820E-03	0	0.00		
Flanges	Gas	3.9E-04	2.064E-02	28	0.58	23	20%
	Heavy Oil	3.9E-07	2.064E-05	0	0.00		
	Light Oil	1.1E-04	5.820E-03	0	0.00		
	Water/Oil	2.9E-06	1.534E-04	0	0.00		
Open-ended Lines	Gas	2.0E-03	1.058E-01	0	0.00		
	Heavy Oil	1.4E-04	7.408E-03	0	0.00		
	Light Oil	1.4E-03	7.408E-02	0	0.00		
	Water/Oil	2.5E-04	1.323E-02	0	0.00		

Total VOC Emissions = 12.0 lb/day

Chevron USA C-2872

Project # , Permit Unit # C-2872-67-1 Waste Water Tank T-120

EPA Protocol for Equipment Leak Emission Estimate
 Table 2-4. Oil and Gas Production Operations
 Average Emission Factors

Weight percentage of VOC in the total organic compounds in gas (neglect non-organics)? 100 %
 Weight percentage of VOC in the total organic compounds in oil (neglect non-organics)? 100 %

Equipment Type	Service	Screening Value EF - TOC		Component Count	VOC emissions (lb/day)		
		(kg/hr/source)	(lb/day/source)				
Valves	Gas	4.5E-03	2.381E-01	17	4.05	14	20%
	Heavy Oil	8.4E-06	4.445E-04	0	0.00		
	Light Oil	2.5E-03	1.323E-01	0	0.00		
	Water/Oil	9.8E-05	5.185E-03	0	0.00		
Pump Seals	Gas	2.4E-03	1.270E-01	0	0.00		
	Heavy Oil	N/A	N/A	0	N/A		
	Light Oil	1.3E-02	6.878E-01	0	0.00		
	Water/Oil	2.4E-05	1.270E-03	0	0.00		
Others	Gas	8.8E-03	4.656E-01	4	1.86	3	20%
	Heavy Oil	3.2E-05	1.693E-03	0	0.00		
	Light Oil	7.5E-03	3.968E-01	0	0.00		
	Water/Oil	1.4E-02	7.408E-01	0	0.00		
Connectors	Gas	2.0E-04	1.058E-02	0	0.00	35	20%
	Heavy Oil	7.5E-06	3.968E-04	0	0.00		
	Light Oil	2.1E-04	1.111E-02	42	0.47		
	Water/Oil	1.1E-04	5.820E-03	0	0.00		
Flanges	Gas	3.9E-04	2.064E-02	43	0.89	35	20%
	Heavy Oil	3.9E-07	2.064E-05	0	0.00		
	Light Oil	1.1E-04	5.820E-03	0	0.00		
	Water/Oil	2.9E-06	1.534E-04	0	0.00		
Open-ended Lines	Gas	2.0E-03	1.058E-01	0	0.00		
	Heavy Oil	1.4E-04	7.408E-03	0	0.00		
	Light Oil	1.4E-03	7.408E-02	0	0.00		
	Water/Oil	2.5E-04	1.323E-02	0	0.00		

Total VOC Emissions = 7.3 lb/day

ATTACHMENT V
Truck Load out Emissions

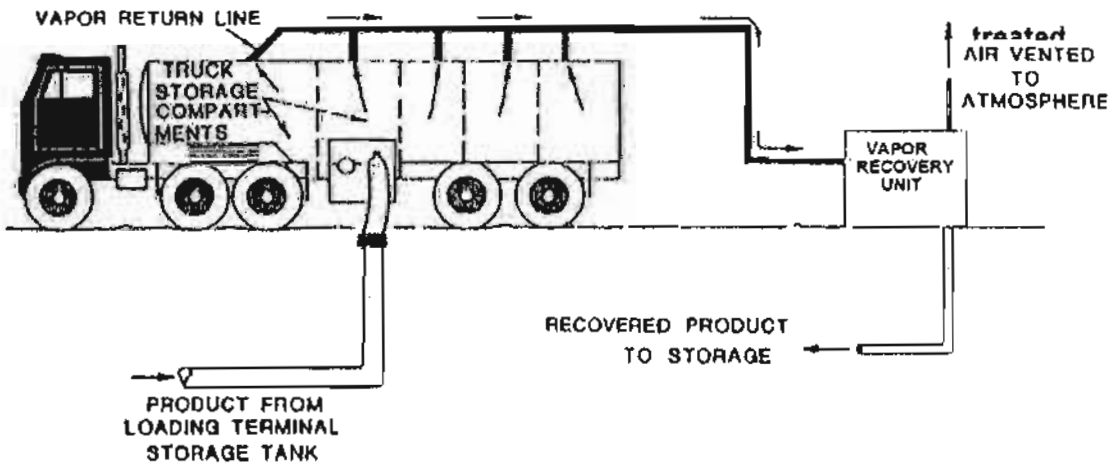


Table 5.2-1 Saturation (S) Factors for Calculating Petroleum Liquid Loading Losses
Cargo Carrier Mode of Operation S Factor

- Tank Trucks and Rail Tank Cars Submerged loading of a clean cargo tank 0.50
- Submerged loading: dedicated normal service 0.60
- Submerged loading: dedicated vapor balance service 1.00
- Splash loading of a clean cargo tank 1.45
- Splash loading: dedicated normal service 1.45
- Splash loading: dedicated vapor balance service 1.00

$$LL \text{ (lb/1000 gal)} = 12.46(S)(P)(M) / (T)$$

- S = Saturation Factor (see above)
- P = true vapor pressure (see attached)
- M = Molecular weight of vapors (assume 80)
- T = Temperature of liquid loaded °R (expected 190°F)

$$LL = \frac{12.46(0.60)(4.0)(100 \text{ lb/lb-mole})}{(120^\circ\text{F} + 460)} = 5.2 \text{ lb-VOC/1,000 gal loaded}$$

$$\text{Uncontrolled Emissions (lb/day)} = [(5.2 \text{ lb-VOC/1,000 gal loaded}) * (476.17 \text{ bbl/day}) * (42 \text{ gal/bbl})] = 103.1 \text{ lb-VOC/day uncontrolled}$$

Controlled emissions (lb/day), assuming a conservative 95% CE from VR system:
 $= (103.1) (1 - .95) = 5.2 \text{ lb-VOC/day}$

ATTACHMENT VI Emissions Profiles

Permit #: C-2872-64-1	Last Updated
Facility: CHEVRON USA, INC.	06/03/2014 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	11242.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	30.8
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	2810.0
Q2:	0.0	0.0	0.0	0.0	2810.0
Q3:	0.0	0.0	0.0	0.0	2811.0
Q4:	0.0	0.0	0.0	0.0	2811.0
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 #: C-2872-65-1	Last Updated
Facility: CHEVRON USA, INC.	06/02/2014 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	1789.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	4.9
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	447.0
Q2:	0.0	0.0	0.0	0.0	447.0
Q3:	0.0	0.0	0.0	0.0	447.0
Q4:	0.0	0.0	0.0	0.0	448.0
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 #: C-2872-66-1	Last Updated
Facility: CHEVRON USA, INC.	06/02/2014 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	4580.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	12.0
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	1145.0
Q2:	0.0	0.0	0.0	0.0	1145.0
Q3:	0.0	0.0	0.0	0.0	1145.0
Q4:	0.0	0.0	0.0	0.0	1145.0
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 #: C-2872-67-1	Last Updated
Facility: CHEVRON USA, INC.	06/02/2014 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	2665.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	7.3
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	666.0
Q2:	0.0	0.0	0.0	0.0	666.0
Q3:	0.0	0.0	0.0	0.0	666.0
Q4:	0.0	0.0	0.0	0.0	667.0
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 #: C-2872-68-1	Last Updated
Facility: CHEVRON USA, INC.	06/09/2014 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	405.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	1.1
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	101.0
Q2:	0.0	0.0	0.0	0.0	101.0
Q3:	0.0	0.0	0.0	0.0	101.0
Q4:	0.0	0.0	0.0	0.0	102.0
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 #: C-2872-69-0	Last Updated
Facility: CHEVRON USA, INC.	06/09/2014 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):	9059.0	683.0	3464.0	49293.0	8393.0
Daily Emis. Limit (lb/Day)	24.8	1.9	9.5	135.1	23.0
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	2264.0	170.0	866.0	12323.0	2098.0
Q2:	2265.0	171.0	866.0	12323.0	2098.0
Q3:	2265.0	171.0	866.0	12323.0	2098.0
Q4:	2265.0	171.0	866.0	12324.0	2099.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					1.5
Quarterly Offset Amounts (lb/Qtr)					
Q1:					2355.0
Q2:					2355.0
Q3:					2355.0
Q4:					2355.0

ATTACHMENT VII BACT Guidelines

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 1.4.2*

Last Update 12/31/1998

Waste Gas Flare - Incinerating Produced Gas

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable		
SOx	Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable Pilot Light fired solely on LPG or natural gas.	Precombustion SOx scrubbing system (non-emergency flares only.)	
PM10	Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable Pilot Light fired solely on LPG or natural gas.		
NOx	Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable		
CO	Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

*This is a Summary Page for this Class of Source

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 7.3.1*

Last Update 10/1/2002

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

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

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

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

*This is a Summary Page for this Class of Source

ATTACHMENT VIII BACT Analyses

For tanks and 3 phase separator vessels

C-2872-64-1 though '-67-1

Step 1 - Identify All Possible Control Technologies

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

Current District BACT Guideline 7.3.1

	Achieved in Practice BACT	Technologically Feasible BACT	Alternate Basic Equipment
VOC	PV relief valve set to within 10% of maximum allowable pressure.	99% control (waste gas incinerated in steam generator, heater treater, or other fired equipment and I & M program; transfer of uncondensed vapors to gas pipeline or reinjection to formation (if appropriate wells are available); or equal).	None Identified

Step 2 - Eliminate Technologically Infeasible Options

The technologically feasible control measures of transferring non-condensable vapors to gas pipeline is not feasible because a gas pipeline does not exist at the project site. All of the above remaining control options identified above are technologically feasible for the proposed equipment and are not eliminated.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

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

Step 4 - Cost Effectiveness Analysis

The proposed tanks will be connected to a vapor recovery system venting a flare and/or DOGGR-approved disposal well(s) – both with 99% vapor control efficiency.

Therefore, the highest ranked control identified is proposed. A cost effectiveness analysis is not required.

Step 5 - Select BACT

99% control (inspection and maintenance program; incineration of collected vapors in flare or reinjection of uncondensed vapors to formation.

Top Down BACT Analysis for Flare

C-2872-69-0

Step 1 - Identify All Possible NO_x and PM₁₀ Control Technologies

BACT Guideline 1.4.2 lists the controls that are considered potentially applicable to waste gas flares incinerating produced gas. The proposed flare is subject to BACT for NO_x and PM₁₀ emissions > 2 lb/day. The control measures are summarized below.

Current District BACT Guideline 1.4.2

	Achieved in Practice BACT	Technologically Feasible BACT	Alternate Basic Equipment
NO_x and VOC	Steam or Air assist or Coanda effect burner, when steam unavailable.	None Identified	None Identified
PM₁₀	Steam or Air assist or Coanda effect burner, when steam unavailable. Pilot light fired solely on LPG or natural gas.		

Step 2 - Eliminate Technologically Infeasible Options

There are no technologically feasible options listed in BACT Guideline 1.4.2.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

NO_x and VOCs: Steam or Air assist or Coanda effect burner, when steam unavailable.

PM₁₀: Steam or Air assist or Coanda effect burner, when steam unavailable. Pilot light fired solely on LPG or natural gas.

Step 4 - Cost Effectiveness Analysis

The proposed flare is equipped with air assist and uses propane as pilot fuel. Therefore, the highest ranked control identified is proposed for NO_x, VOCs, and PM₁₀. A cost effectiveness analysis is not required.

Step 5 - Select BACT

NOx: Steam or Air assist or Coanda effect burner, when steam unavailable.

PM10: Steam or Air assist or Coanda effect burner, when steam unavailable. Pilot light fired solely on LPG or natural gas.

San Joaquin Valley Air Pollution Control District Risk Management Review

To: Richard Edgehill – Permit Services
 From: Kyle Melching – Technical Services
 Date: June 10, 2014
 Facility Name: Chevron USA, Inc.
 Location: W. Palmer Ave. & Calavaras Ave., Coalinga
 Application #(s): C-2872-64-1 thru 68-1 & 69-0
 Project #: C-1141400

A. RMR SUMMARY

RMR Summary				
Categories	Oil Field Fugitives (Units 64-1 thru 68-1)	Waste Gas Flare (Units 69-0)	Project Totals	Facility Totals
Prioritization Score	0.00	0.00	0.00	>1
Acute Hazard Index	0.79	0.00	0.79	0.79
Chronic Hazard Index	0.01	0.00	0.01	0.01
Max Individual Cancer Risk (10E-6)	8.9E-07 ¹	2.41E-07 ¹	1.13E-06	2.55E-06
T-BACT Required?	No	No		
Special Permit Conditions?	Yes	Yes		

Proposed Permit Conditions

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

Unit 69-0:

1. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]

I. Project Description

Technical Services received a request on December 16, 2013, to perform a Risk Management Review (RMR) and Ambient Air Quality Analysis (AAQA) for the installation of up to 1000 bbl crude oil storage and vapor control system including an electric compressor (C-2872-64-1), and up to 1000 bbl crude oil drain tank (C-2872-65-1), a horizontal 3-Phase Separator (C-2872-66-1), and up to 1000 bbl crude oil wash tank (C-2872-67-1). An existing LACT unit will be listed on C-2872-64. An existing truck load out operation (loading rack & pumps) will be permitted separately (C-2872-68-1). A 49.9 MMBtu/hr waste gas flare will also be under analysis. Upon completion of this project the ATC from project C-1133078 will be deleted

II. Analysis

Toxic emissions from Oilfield Fugitives were calculated using emission factors based on the 1991 California Polytechnic State University study, *Development of Species Profiles for Selected Organic Emission Sources*. Toxic emissions for this proposed unit were also calculated using 2001 Ventura County's Air Pollution Control District's emission factors for Natural Gas Fired external combustion and on a refinery gas composition analysis from the 2005 report *FINAL REPORT Test of TDA's Direct Oxidation Process for Sulfur Recovery*. In accordance with the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905-1, March 2, 2001), risks from the project were prioritized using the procedures in the 1990 CAPCOA Facility Prioritization Guidelines and incorporated in the District's HEART's database. The prioritization score for the project was less than 1.0 (see RMR Summary Table); however, the facility's combined prioritization scores totaled to greater than one. Therefore, a refined Health Risk Assessment was required and performed for the project. AERMOD was used with source parameters outlined below and concatenated 5-year meteorological data from Turk to determine maximum dispersion factors at the nearest residential and business receptors. The dispersion factors were input into the HARP model to calculate the Chronic and Acute Hazard Indices and the Carcinogenic Risk.

The following parameters were used for the review:

AREA Source - Analysis Parameters (Unit 64-1)			
Source Type	Area	Closest Receptor (m)	805
Average Release Height (m)	1.67	Type of Receptor	Business/ Residence
Radius of Circle (m)	8.5	Location Type	Rural
Unit 64-1 VOC Emissions (lb/hr)	1.3	Unit 64-1 VOC Emissions (lb/yr)	11,242

AREA Source - Analysis Parameters (Unit 65-1)			
Source Type	Area	Closest Receptor (m)	805
Average Release Height (m)	1.67	Type of Receptor	Business/ Residence
Radius of Circle (m)	8.5	Location Type	Rural
Unit 65-1 VOC Emissions (lb/hr)	0.2	Unit 65-1 VOC Emissions (lb/yr)	1,789

AREA Source - Analysis Parameters (Unit 66-1)			
Source Type	Area	Closest Receptor (m)	805
Average Release Height (m)	5.49	Type of Receptor	Business/ Residence
Radius of Circle (m)	5.26	Location Type	Rural
Unit 66-1 VOC Emissions (lb/hr)	0.5	Unit 66-1 VOC Emissions (lb/yr)	4,380

AREA Source - Analysis Parameters (Unit 67-1)			
Source Type	Area	Closest Receptor (m)	805
Average Release Height (m)	1.67	Type of Receptor	Business/ Residence
Radius of Circle (m)	8.5	Location Type	Rural
Unit 67-1 VOC Emissions (lb/hr)	0.3	Unit 67-1 VOC Emissions (lb/yr)	2,665

AREA Source - Analysis Parameters (Unit 68-1)			
Source Type	Area	Closest Receptor (m)	805
Average Release Height (m)	0.3	Type of Receptor	Business/ Residence
Length of Sides (m)	10.21	Location Type	Rural
Unit 68-1 VOC Emissions (lb/hr)	0.22	Unit 68-1 VOC Emissions (lb/yr)	1,930

AREA Source - Analysis Parameters (Unit 69-0)			
Source Type	Point	Closest Receptor (m)	805
Stack Height (m)	1.67	Type of Receptor	Business/ Residence
Stack Diameter (m)	8.5	Location Type	Rural
Stack Temp. (K)	1273	Waste Gas Usage (MMscf/hr)	0.049
Stack Velocity (m/s)	16.33	Waste Gas Usage (MMscf/yr)	133.23

Technical Services performed modeling for criteria pollutants CO, NO_x, SO_x and PM₁₀; as well as a RMR. The emission rates used for criteria pollutant modeling were 5.63 lb/hr and 49,293 lb/yr CO, 1.03 lb/hr and 9,059 lb/yr NO_x, 0.08 lb/hr and 683 lb/yr SO_x, and 0.4 lb/hr and 3,464 lb/yr PM₁₀. AAQA modeling was only performed for Unit 69-0 since that is the only unit that contains CO, NO_x, SO_x, and PM₁₀ emissions.

The results from the Criteria Pollutant Modeling are as follows:

Criteria Pollutant Modeling Results*

Unit 69-0	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	Pass	X	Pass	X	X
NO _x	Pass ¹	X	X	X	Pass
SO _x	Pass	Pass	X	Pass	Pass
PM ₁₀	X	X	X	Pass ²	Pass ²
PM _{2.5}	X	X	X	Pass ²	Pass ²

*Results were taken from the attached PSD spreadsheet.

¹The project was compared to the 1-hour NO₂ National Ambient Air Quality Standard that became effective on April 12, 2010 using the District's approved procedures.

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

III. Conclusions

Units 64-1 thru 68-1:

The acute and chronic indices are below 1.0; and the maximum individual cancer risk associated with these units is **8.9E-07**; which is less than the 1 in a million threshold. In accordance with the District's Risk Management Policy, these units are approved **without Toxic Best Available Control Technology (T-BACT)**.

Units 69-0:

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

The acute and chronic indices are below 1.0; and the maximum individual cancer risk associated with this unit is **2.41E-07**; which is less than the 1 in a million threshold. In accordance with the District's Risk Management Policy, the unit is approved **without Toxic Best Available Control Technology (T-BACT)**.

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

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

IV. Attachments

- A. RMR request from the project engineer
- B. Additional information from the applicant/project engineer
- C. Prioritization score w/ toxic emissions summary
- D. HARP Risk Report
- E. Facility Summary
- F. AAQA Summary
- G. AAQA Parameter Summary

ATTACHMENT IX
HRA and AAQA

San Joaquin Valley Air Pollution Control District Risk Management Review

To: Richard Edgehill – Permit Services
 From: Kyle Melching – Technical Services
 Date: June 10, 2014
 Facility Name: Chevron USA, Inc.
 Location: W. Palmer Ave. & Calavaras Ave., Coalinga
 Application #(s): C-2872-64-1 thru 68-1 & 69-0
 Project #: C-1141400

A. RMR SUMMARY

RMR Summary				
Categories	Oil Field Fugitives (Units 64-1 thru 68-1)	Waste Gas Flare (Units 69-0)	Project Totals	Facility Totals
Prioritization Score	0.00	0.00	0.00	>1
Acute Hazard Index	0.79	0.00	0.79	0.79
Chronic Hazard Index	0.01	0.00	0.01	0.01
Max Individual Cancer Risk (10E-6)	8.9E-07 ¹	2.41E-07 ¹	1.13E-06	2.55E-06
T-BACT Required?	No	No		
Special Permit Conditions?	Yes	Yes		

Proposed Permit Conditions

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

Unit 69-0:

1. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]

I. Project Description

Technical Services received a request on December 16, 2013, to perform a Risk Management Review (RMR) and Ambient Air Quality Analysis (AAQA) for the installation of up to 1000 bbl crude oil storage and vapor control system including an electric compressor (C-2872-64-1), and up to 1000 bbl crude oil drain tank (C-2872-65-1), a horizontal 3-Phase Separator (C-2872-66-1), and up to 1000 bbl crude oil wash tank (C-2872-67-1). An existing LACT unit will be listed on C-2872-64. An existing truck load out operation (loading rack & pumps) will be permitted separately (C-2872-68-1). A 49.9 MMBtu/hr waste gas flare will also be under analysis. Upon completion of this project the ATC from project C-1133078 will be deleted

II. Analysis

Toxic emissions from Oilfield Fugitives were calculated using emission factors based on the 1991 California Polytechnic State University study, *Development of Species Profiles for Selected Organic Emission Sources*. Toxic emissions for this proposed unit were also calculated using 2001 Ventura County's Air Pollution Control District's emission factors for Natural Gas Fired external combustion and on a refinery gas composition analysis from the 2005 report *FINAL REPORT Test of TDA's Direct Oxidation Process for Sulfur Recovery*. In accordance with the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905-1, March 2, 2001), risks from the project were prioritized using the procedures in the 1990 CAPCOA Facility Prioritization Guidelines and incorporated in the District's HEART's database. The prioritization score for the project was less than 1.0 (see RMR Summary Table); however, the facility's combined prioritization scores totaled to greater than one. Therefore, a refined Health Risk Assessment was required and performed for the project. AERMOD was used with source parameters outlined below and concatenated 5-year meteorological data from Turk to determine maximum dispersion factors at the nearest residential and business receptors. The dispersion factors were input into the HARP model to calculate the Chronic and Acute Hazard Indices and the Carcinogenic Risk.

The following parameters were used for the review:

AREA Source - Analysis Parameters (Unit 64-1)			
Source Type	Area	Closest Receptor (m)	805
Average Release Height (m)	1.67	Type of Receptor	Business/ Residence
Radius of Circle (m)	8.5	Location Type	Rural
Unit 64-1 VOC Emissions (lb/hr)	1.3	Unit 64-1 VOC Emissions (lb/yr)	11,242

AREA Source - Analysis Parameters (Unit 65-1)			
Source Type	Area	Closest Receptor (m)	805
Average Release Height (m)	1.67	Type of Receptor	Business/ Residence
Radius of Circle (m)	8.5	Location Type	Rural
Unit 65-1 VOC Emissions (lb/hr)	0.2	Unit 65-1 VOC Emissions (lb/yr)	1,789

AREA Source - Analysis Parameters (Unit 66-1)			
Source Type	Area	Closest Receptor (m)	805
Average Release Height (m)	5.49	Type of Receptor	Business/ Residence
Radius of Circle (m)	5.26	Location Type	Rural
Unit 66-1 VOC Emissions (lb/hr)	0.5	Unit 66-1 VOC Emissions (lb/yr)	4,380

AREA Source - Analysis Parameters (Unit 67-1)			
Source Type	Area	Closest Receptor (m)	805
Average Release Height (m)	1.67	Type of Receptor	Business/ Residence
Radius of Circle (m)	8.5	Location Type	Rural
Unit 67-1 VOC Emissions (lb/hr)	0.3	Unit 67-1 VOC Emissions (lb/yr)	2,665

AREA Source - Analysis Parameters (Unit 68-1)			
Source Type	Area	Closest Receptor (m)	805
Average Release Height (m)	0.3	Type of Receptor	Business/ Residence
Length of Sides (m)	10.21	Location Type	Rural
Unit 68-1 VOC Emissions (lb/hr)	0.22	Unit 68-1 VOC Emissions (lb/yr)	1,930

AREA Source - Analysis Parameters (Unit 69-0)			
Source Type	Point	Closest Receptor (m)	805
Stack Height (m)	1.67	Type of Receptor	Business/ Residence
Stack Diameter (m)	8.5	Location Type	Rural
Stack Temp. (K)	1273	Waste Gas Usage (MMscf/yr)	0.049
Stack Velocity (m/s)	16.33	Waste Gas Usage (MMscf/yr)	133.23

Technical Services performed modeling for criteria pollutants CO, NO_x, SO_x and PM₁₀; as well as a RMR. The emission rates used for criteria pollutant modeling were 5.63 lb/hr and 49,293 lb/yr CO, 1.03 lb/hr and 9,059 lb/yr NO_x, 0.08 lb/hr and 683 lb/yr SO_x, and 0.4 lb/hr and 3,464 lb/yr PM₁₀. AAQA modeling was only performed for Unit 69-0 since that is the only unit that contains CO, NO_x, SO_x, and PM₁₀ emissions.

The results from the Criteria Pollutant Modeling are as follows:

Criteria Pollutant Modeling Results*

Unit 69-0	1 Hour	3 Hours	8 Hours.	24 Hours	Annual
CO	Pass	X	Pass	X	X
NO _x	Pass ¹	X	X	X	Pass
SO _x	Pass	Pass	X	Pass	Pass
PM ₁₀	X	X	X	Pass ²	Pass ²
PM _{2.5}	X	X	X	Pass ²	Pass ²

*Results were taken from the attached PSD spreadsheet.

¹The project was compared to the 1-hour NO₂ National Ambient Air Quality Standard that became effective on April 12, 2010 using the District's approved procedures.

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

III. Conclusions

Units 64-1 thru 68-1:

The acute and chronic indices are below 1.0; and the maximum individual cancer risk associated with these units is **8.9E-07**; which is less than the 1 in a million threshold. In accordance with the District's Risk Management Policy, these units are approved **without** Toxic Best Available Control Technology (T-BACT).

Units 69-0:

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

The acute and chronic indices are below 1.0; and the maximum individual cancer risk associated with this unit is **2.41E-07**; which is less than the 1 in a million threshold. In accordance with the District's Risk Management Policy, the unit is approved **without** Toxic Best Available Control Technology (T-BACT).

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

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

IV. Attachments

- A. RMR request from the project engineer
- B. Additional information from the applicant/project engineer
- C. Prioritization score w/ toxic emissions summary
- D. HARP Risk Report
- E. Facility Summary
- F. AAQA Summary
- G. AAQA Parameter Summary

ATTACHMENT X
Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-2872-64-1

LEGAL OWNER OR OPERATOR: CHEVRON USA, INC.
MAILING ADDRESS: P O BOX 1392
BAKERSFIELD, CA 93302

LOCATION: LIGHT OIL PRODUCTION
FRESNO COUNTY, CA

SECTION: 7 TOWNSHIP: 19S RANGE: 15E

EQUIPMENT DESCRIPTION:

UP TO 1000 BBL FIXED ROOF CRUDE OIL STORAGE TANK (T-110), INCLUDING LACT UNIT WITH LIQUID PUMPS DISCHARGING TO TRUCK LOADOUT LISTED ON PERMIT C-2872-68, AND VENTING TO TANK VAPOR CONTROL SYSTEM SHARED WITH TANKS C-2872-65, '67, AND TRUCK LOADOUT C-2872-68, DISCHARGING COLLECTED VAPORS THROUGH LOW PRESSURE KNOCKOUT DRUM V-150 TO FLARE C-2872-69 OR DOGGR-APPROVED DISPOSAL WELLS (INSPECTOR TO VERIFY TANK CAPACITY AT STARTUP INSPECTION)

CONDITIONS

1. ATC C-2872-64-0 and PTO C-2872-1-1 are hereby cancelled. [District Rule 2201]
2. ATC shall be implemented concurrently with or subsequent to ATC C-2872-69-0. [District Rule 2201]
3. The vapor control system shall be capable of reducing VOC emissions by at least 99% by weight. [District Rule 2201]
4. Collected tank vapors shall be incinerated in flare C-2872-69 or reinjected into DOGGR-approved disposal wells. [District Rule 2201]
5. Except as otherwise provided on this permit, this tank shall be maintained in a leak-free condition. [District Rule 4623]
6. Except as otherwise provided in this permit, 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 Rule 4623]
7. Except as otherwise provided for on this permit, this tank shall only vent to the vapor control system. [District Rules 2201 and 4623]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

DRAFT
Arnaud Marjolle, Director of Permit Services

C-2872-64-1; Jan 25 2014 TRS/NE-EDG/EHLR : JWH/Asst/NOI Required

8. Except as otherwise provided in this permit, the vapor control system shall be maintained in a leak-free condition. [District Rule 4623]
9. VOC fugitive emissions from the components in gas and liquid service on the tank and LACT shall not exceed 7.6 lb/day. [District Rule 2201]
10. VOC fugitive emissions from the components in gas and liquid service part of the vapor control system shall not exceed 23.2 lb/day. [District Rule 2201]
11. Permittee shall maintain accurate component count for tank and TVR system according to EPA's "Protocol for Equipment Leak Emission Estimate," Table 2-4 (EPA-453/R-95-017), Oil and Gas Production Operations Average Emission Factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201]
12. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623]
13. Any component found to be leaking by the operator on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623]
14. 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 shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 2201 and 4623]
15. 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]
16. 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 one 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]
17. 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]
18. 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]
19. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system 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]
20. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rules 2201 and 4623]
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 2080]

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CONDITIONS CONTINUE ON NEXT PAGE

22. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
23. This tank shall be degassed before commencing interior cleaning by one of the following methods (1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or (2) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or (3) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]
24. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
25. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623]
26. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid. [District Rule 4623]
27. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid is placed, held, or stored in this tank. [District Rule 4623]
28. While performing tank cleaning activities, operators may only use the following cleaning agents: water, diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623]
29. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623]
30. During sludge removal from a vessel containing an organic liquid with a TVP or 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623]
31. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, in closed liquid leak-free containers. [District Rule 4623]
32. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623]
33. All records of required monitoring data and support information 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 Rules 2201 and 4623]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-2872-65-1

LEGAL OWNER OR OPERATOR: CHEVRON USA, INC.
MAILING ADDRESS: P O BOX 1392
BAKERSFIELD, CA 93302

LOCATION: LIGHT OIL PRODUCTION
FRESNO COUNTY, CA

SECTION: 7 TOWNSHIP: 19S RANGE: 15E

EQUIPMENT DESCRIPTION:

1000 BBL FIXED ROOF CRUDE OIL DRAIN TANK (T-130) CONNECTED TO TANK VAPOR CONTROL SYSTEM LISTED ON PERMIT C-2872-64 (INSPECTOR TO VERIFY TANK CAPACITY AT STARTUP INSPECTION)

CONDITIONS

1. ATC shall be implemented concurrently with or subsequent to ATC C-2872-64-1. [District Rule 2201]
2. ATC C-2872-65-0 and PTO C-2872-4-1 are hereby cancelled. [District Rule 2201]
3. Except as otherwise provided on this permit, this tank shall be maintained in a leak-free condition. [District Rule 4623]
4. Except as otherwise provided in this permit, 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 Rule 4623]
5. Except as otherwise provided for on this permit, this tank shall only vent to the vapor control system. [District Rules 2201 and 4623]
6. Except as otherwise provided in this permit, the vapor control system shall be maintained in a leak-free condition. [District Rule 4623]
7. VOC fugitive emissions from the components in gas and liquid service on the tank shall not exceed 4.9 lb/day. [District Rule 2201]
8. Permittee shall maintain accurate component count for tank according to EPA's "Protocol for Equipment Leak Emission Estimate," Table 2-4 (EPA-453/R-95-017), Oil and Gas Production Operations Average Emission Factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5960 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

Amaud Marjolle, Director of Permit Services

C-2872-65-1; Jun 23 2014 10:39AM; EDOEHLE; No Inspection NOT Required

9. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623]
10. Any component found to be leaking by the operator on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623]
11. Operator shall 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 shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 2201 and 4623]
12. 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]
13. 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 one 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]
14. 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]
15. 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]
16. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system 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]
17. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201 and 4623]
18. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2080]
19. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]

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CONDITIONS CONTINUE ON NEXT PAGE

20. This tank shall be degassed before commencing interior cleaning by one of the following methods (1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or (2) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or (3) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]
21. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
22. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623]
23. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid. [District Rule 4623]
24. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid is placed, held, or stored in this tank. [District Rule 4623]
25. While performing tank cleaning activities, operators may only use the following cleaning agents: water, diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623]
26. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623]
27. During sludge removal from a vessel containing an organic liquid with a TVP of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623]
28. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, in closed liquid leak-free containers. [District Rule 4623]
29. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623]
30. All records of required monitoring data and support information 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 Rules 2201 and 4623]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-2872-66-1

LEGAL OWNER OR OPERATOR: CHEVRON USA, INC.
MAILING ADDRESS: P O BOX 1392
BAKERSFIELD, CA 93302

LOCATION: LIGHT OIL PRODUCTION
FRESNO COUNTY, CA

SECTION: 7 TOWNSHIP: 19S RANGE: 15E

EQUIPMENT DESCRIPTION:

UP TO 300 BBL HORIZONTAL THREE PHASE SEPARATOR VESSEL (V-100), INCLUDING HIGH PRESSURE KNOCK OUT VESSEL V-140, VENTED TO FLARE C-2872-69 OR DOGGR-APPROVED DISPOSAL WELL(S) (INSPECTOR TO VERIFY TANK CAPACITY AT STARTUP INSPECTION)

CONDITIONS

1. ATC shall be implemented concurrently with or subsequent to ATC C-2872-64-1. [District Rule 2201]
2. ATC C-2872-66-0 and PTO C-2872-3-1 are hereby cancelled. [District Rule 2201]
3. Except as otherwise provided on this permit, this separator shall be maintained in a leak-free condition. [District Rule 4623]
4. Except as otherwise provided in this permit, any separator gauging or sampling device on a separator 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 Rule 4623]
5. Except as otherwise provided for on this permit, this separator shall only vent to flare C-2872-69 or DOGGR-approved disposal well(s). [District Rules 2201 and 4623]
6. VOC fugitive emissions from the components in gas and liquid service on the phase separator shall not exceed 12.0 lb/day. [District Rule 2201]
7. Permittee shall maintain accurate component count for separator according to EPA's "Protocol for Equipment Leak Emission Estimate," Table 2-4 (EPA-453/R-95-017), Oil and Gas Production Operations Average Emission Factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director APCO

Arnaud Marjolle, Director of Permit Services
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8. All piping, fittings, and valves on this separator shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623]
9. Any component found to be leaking by the operator on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623]
10. Operator shall visually inspect separator shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the separator and within five feet of the separator 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 shells and roofs of uninsulated separators for structural integrity annually. [District Rules 2201 and 4623]
11. 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]
12. 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 one 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]
13. 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]
14. 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]
15. If a component type for a given separator is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the separator or separator system 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]
16. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201 and 4623]
17. 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 2080]
18. Permittee shall notify the APCO in writing at least three (3) days prior to performing separator degassing and interior separator cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the separator being degassed, 2) the date and time that separator degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the separator, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]

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CONDITIONS CONTINUE ON NEXT PAGE

19. This separator shall be degassed before commencing interior cleaning by one of the following methods (1) exhausting VOCs contained in the separator vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or (2) displacing VOCs contained in the separator vapor space to an APCO-approved vapor recovery system by filling the separator with a suitable liquid until 90 percent or more of the maximum operating level of the separator is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or (3) displacing VOCs contained in the separator vapor space to an APCO-approved vapor recovery system by filling the separator with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the separator capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]
20. During separator degassing, the operator shall discharge or displace organic vapors contained in the separator vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
21. To facilitate connection to an external APCO-approved recovery system, a suitable separator fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623]
22. This separator shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the separator with an organic liquid. [District Rule 4623]
23. After a separator has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid is placed, held, or stored in this separator. [District Rule 4623]
24. While performing separator cleaning activities, operators may only use the following cleaning agents: water, diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623]
25. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623]
26. During sludge removal from a vessel containing an organic liquid with a TVP of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623]
27. Permittee shall only transport removed sludge from a separator containing an organic liquid with a TVP of 1.5 psia or greater, in closed liquid leak-free containers. [District Rule 4623]
28. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in separators complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623]
29. All records of required monitoring data and support information 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 Rules 2201 and 4623]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-2872-67-1

LEGAL OWNER OR OPERATOR: CHEVRON USA, INC.
MAILING ADDRESS: P O BOX 1392
BAKERSFIELD, CA 93302

LOCATION: LIGHT OIL PRODUCTION
FRESNO COUNTY, CA

SECTION: 7 TOWNSHIP: 19S RANGE: 15E

EQUIPMENT DESCRIPTION:

UP TO 1000 BBL FIXED ROOF CRUDE OIL WASTE WATER TANK (T-120) CONNECTED TO TANK VAPOR CONTROL SYSTEM LISTED ON PERMIT C-2872-64 (INSPECTOR TO VERIFY TANK CAPACITY AT STARTUP INSPECTION)

CONDITIONS

1. ATC shall be implemented concurrently with or subsequent to ATC C-2872-64-1. [District Rule 2201]
2. ATC C-2872-67-0 and PTO C-2872-7-1 are hereby cancelled. [District Rule 2201]
3. Except as otherwise provided on this permit, this tank shall be maintained in a leak-free condition. [District Rule 4623]
4. Except as otherwise provided in this permit, 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 Rule 4623]
5. Except as otherwise provided for on this permit, this tank shall only vent to the vapor control system listed on C-2872-64. [District Rules 2201 and 4623]
6. VOC fugitive emissions from the components in gas and liquid service on the tank shall not exceed 7.3 lb/day. [District Rule 2201]
7. Permittee shall maintain accurate component count for tank according to EPA's "Protocol for Equipment Leak Emission Estimate," Table 2-4 (EPA-453/R-95-017), Oil and Gas Production Operations Average Emission Factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Sayed Sadredin, Executive Director APCO

Arnaud Marjolle, Director of Permit Services

C-2872-67-1 - JUL 25 2014 10:30AM - 11:00AM - LR - Initial Inspection NOT Required

8. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623]
9. Any component found to be leaking by the operator on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623]
10. 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 shells and roofs of uninsulated tanks for structural integrity annually. [District Rules 2201 and 4623]
11. 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]
12. 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 one 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]
13. 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]
14. 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]
15. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system 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]
16. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201 and 4623]
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2080]
18. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]

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CONDITIONS CONTINUE ON NEXT PAGE

19. This tank shall be degassed before commencing interior cleaning by one of the following methods (1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or (2) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or (3) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]
20. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
21. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623]
22. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid. [District Rule 4623]
23. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid is placed, held, or stored in this tank. [District Rule 4623]
24. While performing tank cleaning activities, operators may only use the following cleaning agents: water, diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623]
25. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623]
26. During sludge removal from a vessel containing an organic liquid with a TVP of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623]
27. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, in closed liquid leak-free containers. [District Rule 4623]
28. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623]
29. All records of required monitoring data and support information 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 Rules 2201 and 4623]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
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PERMIT NO: C-2872-68-1

LEGAL OWNER OR OPERATOR: CHEVRON USA, INC.
MAILING ADDRESS: P O BOX 1392
BAKERSFIELD, CA 93302

LOCATION: LIGHT OIL PRODUCTION
FRESNO COUNTY, CA

SECTION: 7 TOWNSHIP: 19S RANGE: 15E

EQUIPMENT DESCRIPTION:

CLASS 2 ORGANIC LIQUID TRUCK LOADING OPERATION WITH VAPOR RETURN PIPING CONNECTED TO TANK VAPOR CONTROL SYSTEM LISTED ON PERMIT C-2872-64

CONDITIONS

1. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 152 lb, 2nd quarter - 152 lb, 3rd quarter - 152 lb, and fourth quarter - 152 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]
2. ERC Certificate Number S-3737-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
3. ATC shall be implemented concurrently with or subsequent to ATC C-2872-64-1. [District Rule 2201]
4. ATC C-2872-68-0 is hereby cancelled. [District Rule 2201]
5. The unit shall always operate at least 805 ft away from the nearest receptor. [District Rule 4102]
6. During truck loading, displaced vapors shall be vented to the TVR system listed on tank permit C-2872-64. [District Rule 4624]
7. Vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and six inches water column vacuum. [District Rule 4624]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

Arnaud Marjolle, Director of Permit Services
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8. Transfer rack shall be maintained and operated in accordance with the manufacturer's specifications, and operated such that there are no leaks or excess organic liquid drainage at disconnections as defined herein. [District Rule 4624]
9. All liquids and gases from the transfer operation shall be routed to one of the following systems: a vapor collection and control system; a fixed roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); a floating roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a pressure vessel equipped with an APCO-approved vapor recovery system that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a closed VOC emission control system. [District Rules 4623 and 4624]
10. Total product loaded into trucks via truck loading rack shall not exceed 19,999 gallons per day. [District Rules 2201 and 4624]
11. Controlled VOC emissions from truck loading operation shall not exceed 0.0516 lb-VOC/1000 gallons loaded. [District Rules 2201 and 4624]
12. Total number of disconnects shall not exceed 5 per day. [District Rule 2201]
13. During hose disconnects the maximum liquid spillage for liquids shall not exceed 10 milliliters/disconnect based on an average from 3 consecutive disconnects. [District Rule 2201 and 4624]
14. Components subject to Rule 4409 and 4623 (vapor components tied to TVR system listed on C-2872-64) are exempt from the leak inspection requirements of Rule 4624. [District Rule 4624]
15. The operator shall maintain records of truck load out daily liquid throughput and number of disconnects. Records shall be retained for a minimum of five years and made readily available during normal business hours and submitted upon request to the APCO, CARB, or EPA. [District Rule 4624]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: C-2872-69-0

LEGAL OWNER OR OPERATOR: CHEVRON USA, INC.
MAILING ADDRESS: P O BOX 1392
BAKERSFIELD, CA 93302

LOCATION: LIGHT OIL PRODUCTION
FRESNO COUNTY, CA

EQUIPMENT DESCRIPTION:

15.2 MMBTU/HR AIR ASSISTED JOHN ZINC FLARE, ZEECO, OR EQUIVALENT, RECEIVING VAPORS FROM C-2872-64 AND/OR '66

CONDITIONS

1. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 2,203 lb, 2nd quarter - 2,203 lb, 3rd quarter - 2,203 lb, and fourth quarter - 2,203 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]
2. ERC Certificate Number S-3737-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
3. PTO C-2872-2-1 is hereby cancelled. [District Rule 2201]
4. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201]
5. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

Arnaud Marjolle, Director of Permit Services

C-2872-69-0 Jun 21 2014 10:30AM - 11:00AM - JAM Inspection NOT Required

6. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201]
7. No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment. [District Rule 2201]
8. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
9. The unit shall always operate at least 805 meters away from the nearest receptor. [District Rule 4102]
10. Flare shall be equipped with continuous pilot fired only on natural gas, LPG, or propane. [District Rules 2201 and 4311]
11. Flare outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare. The pilot need not be present when the flare is isolated for required flare maintenance. [40 CFR 60.18(c)(2), District Rule 4311, 5.3]
12. Flare shall be equipped with an operating flow-sensing ignition system, an operating heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent operating device capable of continuously detecting at least one pilot flame or the flare flame is present. [District Rule 4311]
13. Gas lines to flare shall be equipped with operational, volumetric flow rate indicators. [District Rule 4311]
14. Flare air-assist blower shall be maintained and operated for smokeless combustion, i.e. no visible emissions in excess of 5% opacity or 1/4 Ringelmann except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [40 CFR 60.18 (c)(1), District Rules 2201, 4001, and 4311]
15. Demonstration of compliance with the visible emissions limit of this permit shall be conducted at least annually, using EPA Method 22. The observation period shall be 2 hours. [40 CFR 60.18(f)(1)]
16. Flare shall be designed and operated to reduce VOC emissions from C-2872-64 and -66 by at least 99% by weight. [District Rule 2201]
17. Emissions rates from the flare shall not exceed any of the following limits: 0.068 lb-NO_x/MMBtu, 0.0051 lb-SO_x/MMBtu, 0.026 lb-PM₁₀/MMBtu, 0.370 lb-CO/MMBtu, or 0.063 lb-VOC/MMBtu. [District Rule 2201]
18. Heat input to the flare shall not exceed 365 MMBtu in any one day nor 133,225 MMBtu per calendar year. [District Rule 2201]
19. Sulfur content of gas flared shall not exceed 1.8 grain-S/100 scf. [District Rules 2201 and 4801]
20. Sulfur content and higher heating value of the flared gas shall be tested within 60 days of startup and not less than annually thereafter. [District Rule 2201]
21. Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, or ASTM Method D 4810-88. Applicant may use other test method(s) with prior written approval from the APCO. [District Rules 1081 and 4311]
22. Pilot/purge gas sulfur content shall be determined using method ASTM D 1072, grab sample analysis by GC-FPD/TCD performed in the laboratory, or by certified copies of the gas sulfur content from the gas supplier. If monitored using continuous analyzers not employing gas chromatography, the total sulfur content shall be determined by using EPA Method D4468-85. Fuel gas hhv shall be determined using ASTM D1826 or D1945 in conjunction with ASTM D3588. Applicant may use other test method(s) with prior written approval from the APCO. [District Rule 1081]
23. Measured higher heating value and volume (scf) of gas flared shall be used to determine compliance with heat input limits. [District Rule 2201]
24. Upon request, the operator shall make available, to the APCO, the compliance determination records that demonstrate compliance with the provisions of 40 CFR 60.18, (c)(3) through (c)(5). [District Rule 4311]
25. A flame shall be present at all times when combustible gases are vented through this flare. [District Rules 2201 and 4311]

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CONDITIONS CONTINUE ON NEXT PAGE

26. Flares shall only be used with the net heating value of the gas being combusted being 300 Btu/scf or greater if the flare is air-assisted or steam-assisted. [40 CFR 60.18 (c)(3)]
27. The net heating value of the gas being combusted in a flare shall be calculated annually, pursuant to 40 CFR 60.18(f)(3) and using EPA Method 18, ASTM D1946, and ASTM D2382. [40 CFR 60.18 (f)(3-6)]
28. Air-assisted flares shall be operated with an exit velocity less than V_{max} , as determined by the equation specified in paragraph 40 CFR 60.18 (f)(6). [40 CFR 60.18 (c)(5)]
29. The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [40 CFR 60.18 (f)(4)]
30. Permittee shall submit and have approved by the APCO a flare minimization plan prior to operating the flare authorized by this permit. [District Rule 4311]
31. Flaring shall be consistent with the operator's approved flare minimization plan (FMP), pursuant to Section 6.5 of Rule 4311, and all commitments listed in that plan have been met. This standard shall not apply if the APCO determines that the flaring is caused by an emergency as defined by Section 3.7 of Rule 4311 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere. [District Rule 4311]
32. The operator of a flare subject to flare minimization requirements pursuant to Section 5.8 shall monitor the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. The operator shall maintain records pursuant to Section 6.1.7 of Rule 4311. Flares that the operator can verify, based on permit conditions, are not capable of producing reportable flare events pursuant to Section 6.2.2 of Rule 4311 shall not be required to monitor vent gas flow to the flare. [District Rule 4311]
33. Permittee shall keep a copy of flare minimization plan on site for District inspection upon request. [40 CFR 60.18, Rule 4311]
34. Permittee shall keep accurate records of (1) daily, and annual volume (scf) of gas flared; (2) flare gas sulfur content test results; and (3) flare gas higher heating value test results. [District Rules 2201 and 4311]
35. Copies of compliance determination pursuant to 40 CFR 60.18 shall be made readily available to the APCO, ARB, and EPA upon request for a minimum of 5 years. [District Rules 1070 and 4311]
36. Semi-annual reports of all periods without the presence of a flare pilot flame shall be furnished to the District Compliance Division and EPA. [District Rule 4001, 40CFR 60.115b(d)(3)]
37. Records shall be maintained of all periods when the flare pilot flame is absent. [District Rule 40CFR 60.115(d)(2)]
38. 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 Rules 1070, 2201 and 4311]

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