

MAY 09 2011

Paul Combs
Crimson Resource Management
5001 California Avenue, #206
Bakersfield, CA 93309

**Re: Notice of Preliminary Decision - Authority to Construct
Project Number: S-1104982**

Dear Mr. Combs:

Enclosed for your review and comment is the District's analysis of Crimson Resource Management's application for an Authority to Construct for the connection of two oil tanks to a tank vapor control system and the installation of a flare, at Crimson Resource Management's Rosedale Ranch production facility near 7th Standard Road and Zerker Road in Kern County.

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

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Steve Roeder of Permit Services at (661) 392-5615.

Sincerely,



David Warner
Director of Permit Services

DW:SR/dg

Enclosures

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585



MAY 09 2011

Mike Tollstrup, Chief
Project Assessment Branch
Stationary Source Division
California Air Resources Board
PO Box 2815
Sacramento, CA 95812-2815

Re: Notice of Preliminary Decision - Authority to Construct
Project Number: S-1104982

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of Crimson Resource Management's application for an Authority to Construct for the connection of two oil tanks to a tank vapor control system and the installation of a flare, at Crimson Resource Management's Rosedale Ranch production facility near 7th Standard Road and Zerker Road in Kern County.

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**NOTICE OF PRELIMINARY DECISION
FOR THE PROPOSED ISSUANCE OF
AN AUTHORITY TO CONSTRUCT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Authority to Construct to Crimson Resource Management for the connection of two oil tanks to a tank vapor control system and the installation of a flare, at Crimson Resource Management's Rosedale Ranch production facility near 7th Standard Road and Zerker Road in Kern County.

The analysis of the regulatory basis for this proposed action, Project #S-1104982, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and the District office at the address below. Written comments on this project must be submitted within 30 days of the publication date of this notice to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.**

San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

New Flare and Modifications to Oil Tanks

Facility Name: Crimson Resource Management Date: 5/2/2011
Mailing Address: 5001 California Avenue, #206 Engineer: Steve Roeder
Bakersfield, CA 93309 Lead Engineer: Richard Karrs

Contact Person: Paul Combs @ Crimson Resource Management (661) 716-5001
or Scott Faulkenburg @ Envirotech (661) 377-0073

Application #: S-3157-7-1, 9-1, 11-2, 27-2, 28-1, 29-1, 30-1, 31-1, 32-1, 33-1 and -35-0.
Project #: S-1104982
Deemed Complete: 2/28/11

I. Proposal

Crimson Resource Management (Crimson) is proposing to connect two oil tanks to existing tank vapor control systems (TVCSs), install a flare to incinerate vapors from the TVCSs, and remove the true vapor pressure (TVP) limit of 0.5 psia from the oil stored in all of their oil tanks that are connected to a TVCS. Crimson has three tank batteries, each with their own TVCS, and the three systems are manifolded together so that the tank gas may be incinerated in either existing internal combustion engines, or the newly proposed flare.

Crimson is a Major Source for VOC emissions. Since they have been designated as a synthetic minor source, they do not have a Title V Operating Permit. The proposed emissions from the new flare will trigger a Federal Major Modification and an NSR Public Notice, and the required 30-day Public Notice period will be conducted at the conclusion of this analysis.

See the current Permits to Operate in Appendix A, and the facility diagrams in Appendix B.

II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (12/18/08)
Rule 2520 Federally Mandated Operating Permits (6/21/01)
Rule 4001 New Source Performance Standards (4/14/99)
40 CFR 60 Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984
Rule 4101 Visible Emissions (2/17/05)
Rule 4102 Nuisance (12/17/92)
Rule 4201 Particulate Matter Concentration (12/17/92)
Rule 4301 Fuel Burning Equipment (12/17/92)
Rule 4311 Flares (6/18/09)
Rule 4623 Storage of Organic Liquids (5/19/2005)
Rule 4801 Sulfur Compounds (12/17/92)

CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
CEQA 14 CCR Division 6, 3 CEQA Guidelines

III. Project Location

The facility is located between 7th Standard Road and Snow Road on the North and South, and between the Calloway Canal and Zerker Road on the East and West, in Section 1, Township 29S, Range 26E, of Crimson's Heavy Oil Central 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.

IV. Process Description

The Rosedale Ranch lease is a heavy oil production facility, producing approximately a 450 bbl/day. Native (not steam enhanced) production (oil, water, and gas) from the wells is routed to three tank batteries, which include water and crude oil storage tanks. The crude oil is stored prior to custody transfer.

Each tank battery has a TVCS that gathers the tank vapors and routes them to either existing engines or the newly proposed flare for at least 99% destruction.

V. Equipment Listing

Pre-project Equipment Descriptions

- S-3157-7-0: ONE 84,000 GALLON FIXED ROOF CRUDE OIL WASH TANK, #3320 (ROSEDALE RANCH)
- S-3157-9-0: ONE 84,000 GALLON FIXED ROOF CRUDE OIL WASH TANK, #3320 (ROSEDALE RANCH)
- S-3157-11-1: ONE 84,000 GALLON FIXED ROOF CRUDE OIL STORAGE TANK, #3376 SERVED BY VAPOR CONTROL SYSTEM POWERED BY A 15 HP ELECTRICAL COMPRESSOR DISCHARGING TO FIELD GAS GATHERING SYSTEM AND SHARED WITH TANKS S-3157-27 AND '-29 (ROSEDALE RANCH MAIN BATTERY)
- S-3157-27-1: 3000 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-3157-11 (ROSEDALE RANCH MAIN BATTERY)
- S-3157-28-0: ONE 1500 BBL FIXED ROOF CRUDE OIL WASH TANK AND VAPOR CONTROL SYSTEM SHARED WITH S-3157-33 (NE WASH TANK, ROSEDALE RANCH NE BATTERY)

S-3157-29-0: ONE 2000 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-3157-11 (ROSEDALE RANCH MAIN BATTERY)

S-3157-33-0: ONE 500 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-3157-28 (NE BUFFER #2, ROSEDALE RANCH NE BATTERY)

ATC Equipment Descriptions

S-3157-7-1: MODIFICATION OF ONE 84,000 GALLON FIXED ROOF CRUDE OIL WASH TANK, #3320 (ROSEDALE RANCH): CONNECT TO THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-25

S-3157-9-1: MODIFICATION OF ONE 84,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, #3627 (ROSEDALE RANCH): CONNECT TO THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-28

S-3157-11-2: MODIFICATION OF ONE 84,000 GALLON FIXED ROOF CRUDE OIL STORAGE TANK #3376 SERVED BY VAPOR CONTROL SYSTEM POWERED BY A 15 HP ELECTRICAL COMPRESSOR DISCHARGING TO FIELD GAS GATHERING SYSTEM AND SHARED WITH TANKS S-3157-27 AND S-29 (ROSEDALE RANCH MAIN BATTERY): REMOVE TVP LIMIT OF 0.5 PSIA

S-3157-27-2: MODIFICATION OF 3,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-11 (ROSEDALE RANCH MAIN BATTERY): REMOVE TVP LIMIT OF 0.5 PSIA

S-3157-28-1: MODIFICATION OF ONE 1,500 BBL FIXED ROOF CRUDE OIL WASH TANK AND TANK VAPOR CONTROL SYSTEM SHARED WITH S-3157-33 (NE WASH TANK, ROSEDALE RANCH NE BATTERY): REMOVE TVP LIMIT OF 0.5 PSIA

S-3157-29-1: MODIFICATION OF ONE 2,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-11 (ROSEDALE RANCH MAIN BATTERY): REMOVE TVP LIMIT OF 0.5 PSIA

S-3157-30-1: MODIFICATION OF ONE 500 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-28 (NE STOCK TANK #1, ROSEDALE RANCH NE BATTERY): REMOVE TVP LIMIT OF 0.5 PSIA

S-3157-31-1: MODIFICATION OF ONE 500 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-28 (NE STOCK TANK #2, ROSEDALE RANCH NE BATTERY): REMOVE TVP LIMIT OF 0.5 PSIA

- S-3157-32-1: MODIFICATION OF ONE 500 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-28 (NE BUFFER # 1, ROSEDALE RANCH NE BATTERY): REMOVE TVP LIMIT OF 0.5 PSIA
- S-3157-33-1: MODIFICATION OF ONE 500 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-28 (NE BUFFER #2, ROSEDALE RANCH NE BATTERY): REMOVE TVP LIMIT OF 0.5 PSIA
- S-3157-35-0: 21.2 MMBTU/HR FLARE SERVING GAS GATHERING/VAPOR CONTROL SYSTEMS LISTED ON PERMITS '-11, '-25, AND '-28

Post-Project Equipment Descriptions

- S-3157-7-1: ONE 84,000 GALLON FIXED ROOF CRUDE OIL WASH TANK, #3320 (ROSEDALE RANCH) CONNECTED TO THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-25
- S-3157-9-1: ONE 84,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, #3627 (ROSEDALE RANCH) CONNECTED TO THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-28
- S-3157-11-2: ONE 84,000 GALLON FIXED ROOF CRUDE OIL STORAGE TANK #3376 SERVED BY VAPOR CONTROL SYSTEM POWERED BY A 15 HP ELECTRICAL COMPRESSOR DISCHARGING TO FIELD GAS GATHERING SYSTEM AND SHARED WITH TANKS S-3157-27 AND '-29 (ROSEDALE RANCH MAIN BATTERY)
- S-3157-27-2: 3,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-11 (ROSEDALE RANCH MAIN BATTERY): REMOVE TVP LIMIT OF 0.5 PSIA
- S-3157-28-1: MODIFICATION OF ONE 1,500 BBL FIXED ROOF CRUDE OIL WASH TANK AND TANK VAPOR CONTROL SYSTEM SHARED WITH S-3157-33 (NE WASH TANK, ROSEDALE RANCH NE BATTERY): REMOVE TVP LIMIT OF 0.5 PSIA
- S-3157-29-1: ONE 2,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-11 (ROSEDALE RANCH MAIN BATTERY)
- S-3157-30-1: ONE 500 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-28 (NE STOCK TANK #1, ROSEDALE RANCH NE BATTERY)

- S-3157-31-1: ONE 500 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-28 (NE STOCK TANK #2, ROSEDALE RANCH NE BATTERY)
- S-3157-32-1: ONE 500 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-28 (NE BUFFER # 1, ROSEDALE RANCH NE BATTERY)
- S-3157-33-1: ONE 500 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-28 (NE BUFFER #2, ROSEDALE RANCH NE BATTERY)
- S-3157-35-0: 21.2 MMBTU/HR FLARE SERVING THE TANK VAPOR CONTROL SYSTEMS LISTED ON PERMITS '-11, '-25, AND '-28

VI. Emission Control Technology Evaluation

Crimson's oil tanks create VOC emissions. Two of the tanks will be connected to existing TVCSs, where all of the gas is captured and routed to incineration devices that will destroy at least 99% of the gas. Fugitive emissions from the existing TVCS components have been estimated using component counts and California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c Oil and Gas Production Screening Value Ranges Emission Factors.

Leaks exceeding 10,000 ppmv are a violation of the permit and must be repaired promptly and diligently as required by a fugitive emissions components I&M Program. With the "no leak" permit condition and I&M program, the TVCSs are expected to have an overall capture and control efficiency of 99%.

The new Flare is expected to deliver a VOC destruction efficiency of at least 99%.

VII. General Calculations

The proposal to remove the vapor pressure limit of 0.5 psia from 8 oil tanks is not an NSR modification. The changes are being made solely to eliminate vapor pressure testing and recordkeeping requirements. Having a TVP limit of 0.5 psia on the tanks is not necessary, as each tank has emissions calculated based on fugitive component emission factors, and is equipped with vapor control and operational conditions meeting the requirements of Rule 4623. Also note that there is no change in service or in the type of crude oil stored in the tanks. Therefore, it is not necessary to calculate the emissions from the 8 tanks.

A. Assumptions

- The maximum operating schedule for the new flare is 24 hours per day (Applicant)
- Maximum Heat Input of the flare is 21.2 MMBtu/hr (Applicant)
- EPA F-factor for natural gas is 8,578 dscf/MMBtu (40 CFR 60, Appendix B)
- Molar Specific Volume of a gas @ 60°F is 379.5 ft³/lb-mole
- Field gas heating value = 750 Btu/scf (Applicant)

- Sulfur content of field gas is less than 1 grain per 100 scf (Applicant and gas analysis)
- Oil tank throughputs are 1 turnover per day (Conservative District assumption)
- There is no change in emissions associated with tanks S-3157-11, -27, -28, 29, -30, -31, or -32.

B. Emission Factors

1. Flare emission factors are taken from District FYI-83, "Use of AP-42 Section 13.5 Emission Factors for Industrial Flares", and are posted in the following table, except for the emission factor for SO_x, which is calculated in the mass sulfur balance below*.

Pollutant	Flare Emission Factors
NO _x	0.068 lb-NO _x /MMBtu
SO _x	0.0038 lb-SO _x /MMBtu
PM ₁₀	0.026 lb-PM ₁₀ /MMBtu
CO	0.37 lb-CO/MMBtu
VOC	0.063 lb-VOC/MMBtu

* Sulfur Mass Balance Equation

$$\frac{1 \text{ grain} \cdot S}{100 \text{ ft}^3} \times \frac{1 \text{ ft}^3}{750 \text{ Btu}} \times \frac{1 \text{ lb}}{7,000 \text{ grain}} \times \frac{2.0 \text{ lb} \cdot SO_2}{1.0 \text{ lb} \cdot S} \times \frac{1,000,000}{MM} = 0.00381 \frac{\text{lb} \cdot SO_2}{MMBtu}$$

2. The pre-project emission factors for the uncontrolled oil tanks are taken from the District "Tanks" spreadsheet and are presented in Appendix C along with the emission calculations.
3. The emission factors for the fugitive components are taken from *California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors*, and are presented in Appendix D along with the emission calculations.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

The daily and annual PE1 for oil tanks S-3157-7 and -9 are calculated in Appendix C and posted in the following 2 tables.

The daily and annual PE1 for oil tanks S-3157-11-1, -27-1, -28-0, 29-0, -30-0, -31-0, -32-0 and -33-0 are taken from project S-1082421 and posted in the following 2 tables.

The daily and annual PE1 for the Flare (S-3157-35) is zero, and posted in the following 2 tables.

Daily PE1 (lb/day)					
	NO _x	SO _x	PM ₁₀	CO	VOC
S-3157-7-0	0	0	0	0	1.8
S-3157-9-0	0	0	0	0	105
S-3157-11-1	0	0	0	0	0.4
S-3157-27-1	0	0	0	0	0.2
S-3157-28-0	0	0	0	0	0.6
S-3157-29-0	0	0	0	0	0.4
S-3157-30-0	0	0	0	0	0.4
S-3157-31-0	0	0	0	0	0.4
S-3157-32-0	0	0	0	0	0.4
S-3157-33-0	0	0	0	0	0.4
S-3585-35-0	0	0	0	0	0
Total PE1	0	0	0	0	110

Annual PE1 (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
S-3157-7-0	0	0	0	0	663
S-3157-9-0	0	0	0	0	38,309
S-3157-11-1	0	0	0	0	146
S-3157-27-1	0	0	0	0	76
S-3157-28-0	0	0	0	0	219
S-3157-29-0	0	0	0	0	146
S-3157-30-0	0	0	0	0	146
S-3157-31-0	0	0	0	0	146
S-3157-32-0	0	0	0	0	146
S-3157-33-0	0	0	0	0	146
S-3585-35-0	0	0	0	0	0
Total PE1	0	0	0	0	40,143

2. Post Project Potential to Emit (PE2)

The daily and annual PE2 for oil tanks S-3157-7-1 and 9-1 are calculated in Appendix D and posted in the following 2 tables.

The daily and annual PE2 for oil tanks S-3157-11-2, -27-2, -28-1, 29-1 -30-1 -31-1 -32-1 and -33-1 are the same as the PE1 and posted in the following 2 tables.

The daily and annual flare emissions (S-3157-35-0) are calculated in Appendix E and posted in the following 2 tables.

Daily PE2 (lb/day)					
	NO _x	SO _x	PM ₁₀	CO	VOC
S-3157-7-1	0	0	0	0	0.3
S-3157-9-1	0	0	0	0	0.3
S-3157-11-2	0	0	0	0	0.4
S-3157-27-2	0	0	0	0	0.2
S-3157-28-1	0	0	0	0	0.6
S-3157-29-1	0	0	0	0	0.4
S-3157-30-1	0	0	0	0	0.4
S-3157-31-1	0	0	0	0	0.4
S-3157-32-1	0	0	0	0	0.4
S-3157-33-1	0	0	0	0	0.4
S-3585-35-0	34.6	1.9	13.2	188.3	32.1
Total PE2	34.6	1.9	13.2	188.3	35.9

Annual PE2 (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
S-3157-7-1	0	0	0	0	95
S-3157-9-1	0	0	0	0	95
S-3157-11-2	0	0	0	0	146
S-3157-27-2	0	0	0	0	76
S-3157-28-1	0	0	0	0	219
S-3157-29-1	0	0	0	0	146
S-3157-30-1	0	0	0	0	146
S-3157-31-1	0	0	0	0	146
S-3157-32-1	0	0	0	0	146
S-3157-33-1	0	0	0	0	146
S-3585-35-0	12,628	706	4,829	68,713	11,700
Total PE2	12,628	706	4,829	68,713	13,061

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

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

This facility does not have any ERCs.

The SSPE1 is taken from project S-1082421 and posted in the following table, except for the emissions from units -7-0 and -9-0, which are calculated in Appendix C, emissions from unit -23-0, which were taken from the emissions profile for that unit, and emissions from unit -34-0, which were taken from project S-1102817.

SSPE1 (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
S-3157-7-0	0	0	0	0	663
S-3157-8-0	0	0	0	0	38,575
S-3157-9-0	0	0	0	0	38,309
S-3157-10-0	0	0	0	0	2,075
S-3157-11-1	0	0	0	0	146
S-3157-15-4	1,314	41	143	47,977	3,126
S-3157-23-0	0	0	0	0	2,336
S-3157-24-2	676	21	73	24,604	1,603
S-3157-25-0	0	0	0	0	0
S-3157-26-0	0	0	0	0	0
S-3157-27-1	0	0	0	0	76
S-3157-28-0	0	0	0	0	219
S-3157-29-0	0	0	0	0	146
S-3157-30-0	0	0	0	0	146
S-3157-31-0	0	0	0	0	146
S-3157-32-0	0	0	0	0	146
S-3157-33-0	0	0	0	0	146
S-3157-34-0	924	114	185	625	163
S-3157-35-0	0	0	0	0	0
SSPE1	2,914	176	401	73,206	88,021

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

Pursuant to Section 4.10 of District Rule 2201, the SSPE2 is the PE from all units with valid ATCs or PTOs at the Stationary Source and the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site.

The SSPE2 were all taken from the SSPE1 table above, except for the emissions from units -7-0, -9-0 and -35-0, which are calculated in Appendixes D and E.

SSPE2 (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
S-3157-7-1	0	0	0	0	95
S-3157-8-0	0	0	0	0	38,575
S-3157-9-1	0	0	0	0	95
S-3157-10-0	0	0	0	0	2,075
S-3157-11-2	0	0	0	0	146
S-3157-15-4	1,314	41	143	47,977	3,126
S-3157-23-0	0	0	0	0	2,336
S-3157-24-2	676	21	73	24,604	1,603
S-3157-25-0	0	0	0	0	0
S-3157-26-0	0	0	0	0	0

S-3157-27-2	0	0	0	0	76
S-3157-28-1	0	0	0	0	219
S-3157-29-1	0	0	0	0	146
S-3157-30-1	0	0	0	0	146
S-3157-31-1	0	0	0	0	146
S-3157-32-1	0	0	0	0	146
S-3157-33-1	0	0	0	0	146
S-3157-34-0	924	114	185	625	163
S-3157-35-0	12,628	706	4,829	68,713	11,700
SSPE2	15,542	882	5,230	141,919	60,939

5. Major Source Determination

Pursuant to Section 3.24 of District Rule 2201, a Major Source is a stationary source with a SSPE2, equal to or exceeding one or more of the following threshold values.

Major Source Determination					
Pollutant	SSPE1 (lb/yr)	SSPE2 (lb/yr)	Major Source Threshold (lb/yr)	Existing Major Source?	Post Project Major Source?
NO _x	2,914	15,542	20,000	No	No
SO _x	176	882	140,000	No	No
PM ₁₀	401	5,230	140,000	No	No
CO	73,206	141,919	200,000	No	No
VOC	88,021	60,939	20,000	Yes	Yes

As shown in the table above, the facility is an existing Major Source for VOC emissions and will remain a major source for VOC emissions as the result of this project.

6. Baseline Emissions (BE)

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

Pursuant to Section 3.7 of District Rule 2201, BE = PE1 for:

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

otherwise,

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

Section 3.12.2 of Rule 2201 defines a Clean Emissions Unit as a unit that is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

This project consists of modifications to 2 oil tanks of less than 5,000 bbl capacity with P/V vents (S-3157-7 and -9), 8 oil tanks connected to a TVCS (S-3157-11, and -27 thru -33) and one new flare (-35).

BACT Guideline 7.3.1 (see Appendix F) identifies "Achieved-in-Practice" BACT for fixed roof organic liquid storage tanks of less than 5,000 bbl capacity as having a P/V vent set to within 10% of the working pressure of the tank.

Since units S-3157-7 and -9 are equipped with P/V vents that meet this criteria, they are deemed to be clean emission units, and the BE is equal to the PE1.

Since units S-3157-11, and -27 thru -33 are equipped with a vapor control device of at least 99% control, with the vapors incinerated in IC engines, these units meet "Technologically Feasible" BACT (see Appendix F) and are also deemed to be clean emission units. Therefore, the BE for these tanks is equal to the PE1.

Since the flare (S-3157-35-0) is a new unit, it does not have a BE; the BE is zero.

The BE for all units in this project are posted in the following table.

	BE (lb/year)				
	NO _x	SO _x	PM ₁₀	CO	VOC
S-3157-7-0	0	0	0	0	663
S-3157-9-0	0	0	0	0	38,309
S-3157-11-1	0	0	0	0	146
S-3157-27-1	0	0	0	0	76
S-3157-28-0	0	0	0	0	219
S-3157-29-0	0	0	0	0	146
S-3157-30-0	0	0	0	0	146
S-3157-31-0	0	0	0	0	146
S-3157-32-0	0	0	0	0	146
S-3157-33-0	0	0	0	0	146
S-3585-35-0	0	0	0	0	0
Total BE	0	0	0	0	40,143

7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 (12/19/02) and part D of Title I of the Clean Air Act (12/19/02), and is triggered if the emissions increases for a project at an existing major source exceed any of the following SB 288 Major Modification thresholds. In order to determine if this project results in an SB 288 Major

Modification, the PE2 for each unit is first compared to the respective thresholds in the following table.

Comparison of PE2 and the SB 288 Major Modification Thresholds			
Pollutant	PE2 (lb/yr)	SB 288 Major Mod Thresholds	SB 288 Major Mod Calculations Required?
NO _x	12,628	50,000	No
SO _x	706	80,000	No
PM ₁₀	4,829	30,000	No
CO	68,713	N/A	No
VOC	13,061	50,000	No

Since the PE2 for this project does not exceed any of the SB288 Major Modification Thresholds posted above, this project can not constitute an SB 288 Major Modification.

8. Federal Major Modification

A Federal Major Modification is a modification to a major source where the emissions increase for any permit unit in the project exceeds any of the following thresholds. For this project, the only emissions increase comes from the proposed new flare. In order to determine if the flare triggers a Federal Major Modification, the PE2 is compared to the respective thresholds in the following table.

Comparison of new Flare Emissions and Federal Major Modification Thresholds			
Pollutant	Flare PE2 (lb/yr)	Federal Major Mod Thresholds	Federal Major Modification?
NO _x	12,628	0	Yes
SO _x	706	80,000	No
PM ₁₀	4,829	30,000	No
CO	68,713	N/A	No
VOC	11,700	0	Yes

Since the PE2 from the new flare exceeds the Federal Major Modification thresholds for NO_x and VOC emissions, this project does constitute a Federal Major Modification. The requirements for the Federal Major Modification are discussed in the Public Notice Section of Rule 2201 below.

9. Quarterly Net Emissions Change (QNEC)

The QNEC is used to complete the emission profile screens for the District's PAS database. The QNEC shall be calculated as follows.

QNEC = (PE2 - PE1) ÷ 4 quarters per year, where:

- QNEC = QNEC for each emissions unit, in lb/qtr.
- PE2 = Post Project Potential to Emit for each emissions unit, in lb/yr.
- PE1 = Pre-Project Potential to Emit for each emissions unit, in lb/yr.

Using the values determined above, the QNEC is calculated for each permit unit and for each pollutant in the following table.

QNEC S-3157, 1104982				
Unit	Pollutant	PE2 (lb/yr)	PE1 (lb/yr)	QNEC (lb/qtr)
S-3157-7-0	VOC	95	663	- 142
S-3157-9-0	VOC	95	38,309	-9,554
S-3157-11-1	VOC	146	146	0
S-3157-27-1	VOC	76	76	0
S-3157-28-0	VOC	219	219	0
S-3157-29-0	VOC	146	146	0
S-3157-30-0	VOC	146	146	0
S-3157-31-0	VOC	146	146	0
S-3157-32-0	VOC	146	146	0
S-3157-33-0	VOC	146	146	0
S-3585-35-0	NO _x	12,628	0	3,157
S-3585-35-0	SO _x	706	0	177
S-3585-35-0	PM ₁₀	4,829	0	1,207
S-3585-35-0	CO	68,713	0	17,178
S-3585-35-0	VOC	11,700	0	2,925

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 for the following*:

- a. Any new emissions unit with a potential to emit exceeding two pounds per day,
- b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
- c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
- d. Any new or modified emissions unit, in a stationary source project, which results in an SB288 Major Modification or a Federal Major Modification, as defined by the rule.

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

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

The only new emissions unit in this project is a flare. The flare will be used as a vapor incineration device for the 3 tank batteries' TVCSs.

Since two tanks are being added to their respective TVCSs, the resulting increase in VOCs required additional incineration capacity. Therefore, the flare is being added as an additional incineration device.

According to BACT Guideline 7.3.1 (in Appendix F), the flare is the final VOC-destruction device for Technologically Feasible BACT for oil tanks.

This being the case, the flare is considered to be BACT for the oil tank TVCSs, and pursuant to District practice, additional BACT on the flare (which is BACT for the tanks) will not be required.

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

Since this project does not involve the relocation of any emissions units, BACT is not triggered for relocation purposes.

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

Two tanks are being physically modified during this project. Since the modifications included a significant reduction in VOC emissions by connecting the tanks to TVCSs, there is no increase in emissions associated with the tank modifications, and therefore BACT is not required for the modifications to any of the tanks.

d. SB288 Major Modification or a Federal Major Modification

This project triggers a Federal Major Modification because NO_x and VOC emissions from the flare exceed the threshold value of 0 lb/year. However, as the flare is a control device, there is no requirement to apply BACT to the flare.

2. BACT Guideline

Since BACT is not being imposed on any of the units involved in this project, no BACT guideline is presented for this purpose.

3. Top-Down BACT Analysis

Since BACT is not being imposed on any of the units involved in this project, a Top-Down BACT Analysis is not applicable.

B. Offsets

1. Offset Applicability

Pursuant to Section 4.5.3, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the SSPE2 equals or exceeds any of the offset thresholds in Table 4-1 of Rule 2201.

The SSPE2 is compared to the offset thresholds in the following table.

Offset Thresholds			
Pollutant	SSPE2 (lb/year)	Offset Thresholds (lb/year)	Offsets Triggered?
NO _x	15,542	20,000	No
SO _x	882	54,750	No
PM ₁₀	5,230	29,200	No
CO	141,919	200,000	No
VOC	60,939	20,000	Yes

2. Quantity of Offsets Required

As shown in the table above, the SSPE2 exceeds the offset threshold for VOC emissions and offset calculations are necessary.

Pursuant to Section 4.7.1, for pollutants with an SSPE1 greater than the emission offset thresholds, emission offsets shall be provided for all increases in Stationary Source emissions (SSIPE), calculated as the sum of differences between the PE2 and the BE of all new and modified emissions units.

The SSPE1 is compared to the offset thresholds in the following table.

SSPE1 vs. Offset Thresholds			
Pollutant	SSPE1 (lb/year)	Offset Threshold (lb/year)	SSPE1 > Offset Threshold?
VOC	88,021	20,000	Yes

Since the SSPE1 is greater than the offset threshold for VOC emissions, offsets will be required for the SSIPE for VOC, calculated as the total project PE2 - total project BE. The amount of offsets required for VOC emissions is calculated in the following table.

Offsets Required (lb/year)	
	VOC
Total Project BE	40,143
Total Project PE2	12,061
Offsets Required	-28,082

Since the amount of offsets required is negative, Offsets will not be required for this project.

In order to ensure that the SSPE does decrease as proposed, the two oil tanks shall be connected to vapor control prior to or concurrently with the installation or operation of the new flare, and the following condition will be listed on the new flare's ATC.

- Authorities to Construct (ATCs) S-3157-7-1 and 9-1 shall be implemented prior to or concurrently with the implementation of this ATC. [District Rule 2201]

C. Public Notification

1. Applicability

Public noticing is required for:

- New Major Sources, Federal Major Modifications, and SB 288 Major Modifications
- New emissions units with a PE > 100 lb/day
- Modifications that increase the SSPE across the offset threshold for any pollutant
- New Stationary Sources with an SSPE2 exceeding any emissions offset threshold
- Any Permitting Action resulting in a SSIPE > 20,000 lb/yr for any pollutant.

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications

Section 5.4.1 requires public notification for New Major Sources, Federal Major Modifications, and SB 288 Major Modifications. Since this project is a Federal Major Modification, public noticing will be required for this purpose.

b. New emissions unit with a PE > 100 lb/day

Section 5.4.2 requires public notification for projects for any new emissions unit with emissions exceeding 100 lb/day. Since flare emissions exceed 100 lb/day for CO emissions, public noticing is required for this purpose.

c. Modifications Exceeding any Offset Thresholds

Section 5.4.3 requires public notification for projects that raise the SSPE above the offset threshold for any pollutant. As seen in the following table, the facility's SSPE1 and SSPE2 all remain below the offset thresholds for NO_x, SO_x, PM₁₀, and CO, and above the offset threshold for VOC emissions.

Public Notice Offset Threshold Values				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold (lb/year)	SSPE Crosses the Offset Threshold?
NO _x	2,914	15,542	20,000	No
SO _x	176	882	54,750	No
PM ₁₀	401	5,230	29,200	No
CO	73,206	141,919	200,000	No
VOC	88,021	60,939	20,000	No

Since no offset thresholds are being surpassed with this project, public noticing is not required for this purpose.

d. New Stationary Sources Exceeding any Offset Thresholds

Section 5.4.4 requires public notification for any new stationary source with an SSPE2 exceeding any offset threshold. Since this is not a new stationary source, public noticing for new stationary sources is not required.

e. SSIPE > 20,000 lb/year

Section 5.4.5 requires public notification for any permitting action that results in a SSIPE of more than 20,000 lb/year of any affected pollutant. According to District Policy, the SSIPE is calculated as SSPE2 – SSPE1. The values for SSPE2 and SSPE1 are calculated according to Rule 2201 above. The SSIPE is calculated and compared to the SSIPE Public Notice thresholds in the following table.

SSIPE – Public Notice Thresholds					
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO _x	2,914	15,542	12,628	20,000 lb/year	No
SO _x	176	882	706	20,000 lb/year	No
PM ₁₀	401	5,230	4,829	20,000 lb/year	No
CO	73,206	141,919	68,713	20,000 lb/year	Yes
VOC	88,021	60,939	-27,082	20,000 lb/year	No

As shown above, the SSIPE for CO is greater than 20,000 lb/year. Therefore public noticing for SSIPE purposes is required for this project.

2. Public Notice Action

As discussed above, this project requires public noticing for being a Federal Major Modification, for having a new emissions unit with emissions greater than 100 lb/day, and for having an SSIPE greater than 20,000 lb/year. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be published in a local newspaper of general circulation at the conclusion of this analysis and prior to the issuance of the ATCs 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. Per Sections 3.15.1 and 3.15.2, the DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

For the flare, the DEL is stated as a maximum rated heat input to the flare (in MMBtu/hr), the maximum operating schedule of 24 hours per day, and the emission factors in lb-pollutant per MMBtu. The SO_x emissions are limited by limiting the amount of sulfur in the incinerated gas.

The following conditions will be listed on the flare permit (S-3157-35-0) to establish the DELs.

- Maximum flare heat input shall not exceed 21.2 MMBtu/hr. [District Rule 2201]
- Emissions shall not exceed any of the following limits: 0.068 lb-NO_x/MMBtu, 0.0038 lb-SO_x/MMBtu, 0.026 lb-PM₁₀/MMBtu, 0.37 lb-CO/MMBtu or 0.063 lb-VOC/MMBtu. [District Rule 2201]
- The sulfur content of the gas being incinerated shall not exceed 1 grain total Sulfur per 100 scf of gas. [District Rule 2201]

For the oil tanks being connected to vapor recovery, the DEL is determined by multiplying the fugitive component counts by their respective emission factors. The following conditions will be listed on the respective oil tank permits to establish the DELs.

Tanks S-3157-7-1 and 9-1

- The Permittee shall maintain with the permit accurate fugitive component counts, and the resulting emissions from the tank, using "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-2c, "Oil and Gas Production Screening Value Ranges (< 10,000 ppmv) Emission Factors". [District Rule 2201]
- VOC emission rate from vapor service components associated with this tank shall not exceed 0.3 lb/day. [District Rule 2201]

Since the emissions and fugitive component counts of the existing oil tanks that will remain connected to vapor control are not changing, the following conditions will be listed on the respective tank permits to maintain the existing DELs.

Tanks S-3147-11-1, -29-1, 31-1, 32-1 and -33-1:

- The Permittee shall maintain with the permit accurate fugitive component counts, and the resulting emissions from the tank, using "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-2c, "Oil and Gas Production Screening Value Ranges (< 10,000 ppmv) Emission Factors". [District Rule 2201]
- VOC emission rate from vapor service components associated with this tank shall not exceed 0.4 lb/day. [District Rule 2201]

Tanks S-3157-27-2 and -28-1:

- The Permittee shall maintain with the permit accurate fugitive component counts, and the resulting emissions from the tank, using "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-2c, "Oil and Gas Production Screening Value Ranges (< 10,000 ppmv) Emission Factors". [District Rule 2201]
- VOC emission rate from vapor service components associated with this tank shall not exceed 0.2 lb/day. [District Rule 2201]

In addition, the applicant has requested to have the vapor pressure limit of 0.5 psia from tank permits S-3157-11, 27, 28, 29, 30, 31, 32 and 33. The proposal is approvable under Rule 4623 (see discussion of that Rule below). Since the tanks are connected to a TVCS, the emissions are calculated based on fugitive component counts (as detailed in the calculation section above) and have nothing to do with the vapor pressure of the liquid stored in the tanks. Therefore, there will be no change in emissions associated with the removal of the vapor pressure limit, and the DELs will not be affected.

E. Compliance Assurance

1. Source Testing

None of the equipment in this project is subject to source testing.

2. Monitoring

Monitoring to demonstrate compliance with Rule 2201 is only required for this project to monitor the sulfur content of the field gas being piped to the flare for incineration. Therefore the following conditions will be listed on permit S-3157-35-0 to ensure compliance.

- The gas piped to the flare shall be analyzed for total sulfur content within 60 days of initial start-up and at least once annually thereafter. [District Rules 1070 and 2201]

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with Rule 2201 for the sulfur emissions for the flare. The following condition will be listed on the flare permit .

- Records of the sulfur content of the gas (in grains S per 100 scf) shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rules 1070 and 2201]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis

Section 4.14.1 requires that an Ambient Air Quality Analysis (AAQA) be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. See the AAQA Summary in Appendix G.

Technical Services also performed modeling for criteria pollutants CO, NO_x, SO_x, and PM₁₀; as well as the RMR (See Appendix H). The emission rates used for criteria pollutant modeling were 7.84 lb/hr CO, 1.44 lb/hr NO_x, 0.08 lb/hr SO_x, and 0.55 lb/hr PM₁₀.

Criteria Pollutant Modeling Results*

Values are in µg/m³

Unit 35-0	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	Pass	X	Pass	X	X
NO _x	Pass ²	X	X	X	Pass
SO _x	Pass	Pass	X	Pass	Pass
PM ₁₀	X	X	X	Pass ¹	Pass ¹

*Results were taken from the attached PSD spreadsheets.

¹The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

²The 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.

Conclusion

The criteria modeling runs indicate the emissions from the proposed equipment will not cause or significantly contribute to a violation of a State or National Ambient Air Quality Standard. Therefore no special conditions are required.

Compliance with Rule 2201 is expected.

Rule 2520 Federally Mandated Operating Permits

This facility is now a major source for VOC emissions, however, the facility had been a synthetic minor facility under the previous major source thresholds. The facility currently does not have a Title V permit.

Rule 4001 New Source Performance Standards (NSPS)

40 CFR 60 Subpart Kb Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

This subpart applies to oil tanks with a capacity greater than 10,000 barrels. Since the tanks in this project do not exceed 10,000 barrels, this subpart is not applicable to this project.

There are no Subparts of 40 CFR 60 applicable to Flares.

Rule 4101 Visible Emissions

Pursuant to Section 5.0, no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity).

The following condition will be listed on each permit to ensure compliance.

- {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

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 boiler operations. Therefore, compliance with this rule is expected and the following condition will be listed on each permit to operate to ensure compliance.

- {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 (dated 3/2/1) 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.

Therefore pursuant to the policy, a risk management review has been performed for this project to analyze the impact of toxic emissions. For projects where the increase in cancer risk is greater than one per million, Toxic Best Available Control Technology (T-BACT) is required.

The RMR is shown in Appendix H, and the summary results are posted in the table below.

RMR Summary			
Categories	Field Gas Powered Flare (Unit 35-0)	Project Totals	Facility Totals
Prioritization Score	0.17*	0.17*	0.36
Acute Hazard Index	N/A	N/A	N/A
Chronic Hazard Index	N/A	N/A	N/A
Maximum Individual Cancer Risk	N/A	N/A	N/A
T-BACT Required?	No		
Special Permit Conditions?	No		

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

As shown, the prioritization score was less than 1.0. Therefore, no special permit conditions are required and compliance with the District's Risk Management Policy is expected.

Rule 4201 Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

The concentration of particulate matter in the flare's exhaust can be calculated given the following data:

- F-Factor for Natural Gas: 8,578 dscf/MMBtu at 60 °F
- PM₁₀ Emission Factor: 0.026 lb-PM₁₀/MMBtu
- Percentage of PM as PM₁₀ in Exhaust: 100%
- Exhaust Oxygen (O₂) Concentration: 3%
- Excess Air Correction to F Factor = 20.9 ÷ (20.9 - 3) = 1.17

$$\frac{\left(\frac{0.026 \text{ lb} \cdot \text{PM}}{\text{MMBtu}} \times \frac{7,000 \text{ grain}}{\text{lb}} \right)}{\frac{8,578 \text{ ft}^3}{\text{MMBtu}} \times 1.17} = 0.02 \frac{\text{grain} \cdot \text{PM}}{\text{ft}^3}$$

Since 0.02 grain/dscf is less than 0.1 grain/dscf, compliance with District Rule 4201 is expected and the following condition will be listed on the flare's permit to ensure compliance.

- {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

Rule 4301 Fuel Burning Equipment

This rule specifies maximum emission rates in lb/hr for SO₂, NO₂, and combustion contaminants (defined as total PM in Rule 1020). This rule also limits combustion contaminants to ≤ 0.1 gr/scf. According to AP 42 (Table 1.4-2, footnote c), all PM emissions from natural gas and LPG combustion are less than 1 μm in diameter.

The following table compares the Flare's emissions with Rule 4301 limits.

Rule 4301 Limits			
Pollutant	Flare Emissions (lb/hr)	Rule 4301 Limits (lb/hr)	Compliant?
NO ₂	1.44	140	Yes
SO ₂	0.08	200	Yes
Total PM	0.6	200	Yes

Since none of the Rule 4301 limits are exceeded, compliance with Rule 4301 is expected. Since the proposed emission limits already placed on the flare permit are much more stringent, no additional conditions will be listed.

Rule 4311 Flares

The purpose of this Rule is to limit the emissions of VOC, NO_x, and sulfur oxides SO_x from the operation of flares.

The proposed continuous-operation flare is to be equipped with a flow sensing auto igniter, and the process pressure shall be maintained above 5 psig when gas is being piped to the flare for incineration.

Pursuant to Section 5, the following conditions will be listed on the flare's permit.

- The flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311]
- The outlet shall be equipped with an automatic ignition system. [District Rule 4311]
- Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311]
- Effective on and after July 1, 2011, 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. This standard shall not apply if the APCO determines that the flaring is caused by an emergency as defined by Section 3.7 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere. [District Rule 4311]
- The operator shall submit a flare minimization plan to the District for approval that includes all of the data required under Section 6.5 of Rule 4311 within 60 days of startup. [District Rule 4311]
- Effective on and after July 1, 2011, 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. [District Rule 4311]
- Records of the gas sulfur content and required gas flow measurements shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]

Compliance with Rule 4311 is expected.

Rule 4623 Storage of Organic Liquids

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

Crimson is a small producer. According to Table 2, Group B, tanks with a capacity of greater than 39,600 bbl that are equipped with a TVRS are allowed to handle organic liquid with vapor pressures exceeding 11 psia. Therefore, the request to remove the TVP limit of 0.5 psia from the tanks that are already connected to the TVCS is authorized and the condition will be

removed from permits S-3157-11, 27, 28, 29, 30, 31, 32 and 33. Since no vapor pressure limit shall apply to the tanks, all of the TVP testing requirements will be removed as well.

Pursuant to Section 5 and Table 3, the following condition will be listed on the oil tank permits.

- To maintain status as small producer, permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern county and permittee shall not engage in refining, transporting or marketing of refined petroleum products. [District Rules 3020 and 4623]
- This tank shall be connected to the tank vapor control system listed on tank permit S-3157-X. [District Rule 4623] (This condition is not listed on tank permits S-3157-25, -28 or -11, because the TVRS is listed on those permits.)
- This tank shall be equipped with a vapor control 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 99% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]
- This tank shall be fully enclosed and maintained in a leak-free condition. [District Rule 4623]
- All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623]
- A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 4623]
- The pressure-vacuum relief valve shall be set to within ten (10) percent of the maximum allowable working pressure of the tank. The pressure-vacuum relief valve shall be permanently labeled with the operating pressure settings. The pressure-vacuum relief valve shall be properly installed and maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure. [District Rule 4623]
- Any tank gauging or sampling device shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
- All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623]
- 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]

- 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]
- 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]
- Upon detection of a gas leak, the operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623]
- 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]
- 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]
- 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]
- 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]
- Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rule 4623]
- Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rule 4623]
- 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 1070]

Pursuant to Section 5.1.2, a small producer shall not place, hold, or store crude oil in any tank unless such tank is equipped with a VOC control system identified in Table 2. For storage of any organic liquid except crude oil, a small producer shall comply with the requirements of Section 5.1.1.

Compliance with Rule 4623 is expected.

Rule 4801 Sulfur Compounds

A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 % by volume calculated as SO₂, on a dry basis averaged over 15 consecutive minutes.

Using the ideal gas equation and the emission factors presented in Section VII, the sulfur compound emissions from the flare are calculated as follows:

$$Volume SO_2 = \frac{n \cdot R \cdot T}{P}$$

Where

n = moles SO₂

T (Standard Temperature) = 60°F = 520°R

P (Standard Pressure) = 14.7 psi

R (Universal Gas Constant) = $\frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot \text{°R}}$

$$\frac{0.0038 \text{ lb} \cdot \text{SO}_x}{\text{MMBtu}} \times \frac{\text{MMBtu}}{8,578 \text{ dscf}} \times \frac{1 \text{ lb} \cdot \text{mol}}{64 \text{ lb}} \times \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot \text{°R}} \times \frac{520 \text{ °R}}{14.7 \text{ psi}} \times \frac{1,000,000 \cdot \text{parts}}{\text{million}} = 2.6 \frac{\text{parts}}{\text{million}}$$

Since 2.6 ppmv is less than 2,000 ppmv, compliance with Rule 4801 is expected.

California Health & Safety Code 42301.6 (School Notice)

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

California Environmental Quality Act (CEQA)

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

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

The District performed an Engineering Evaluation (this document) for the proposed project and determined that the increase in the potential to emit of each modified unit is less than the District's BACT threshold for each criteria pollutant. Thus, Best Available Control Technology (BACT) requirements do not apply. Furthermore, the District conducted a RMR and concludes that potential health impacts are less than significant.

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

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Issue ATCs S-3157-7-1, 9-1, 11-2, 27-2, 28-1, 29-1, 30-1, 31-1, 32-1, 33-1 and -35-0.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-3157-7-1	3020-5S-D	84,000 Gallon Tank at a Small Producer	\$75
S-3157-9-1	3020-5S-D	84,000 Gallon Tank at a Small Producer	\$75
S-3157-11-2	3020-5S-D	84,000 Gallon Tank at a Small Producer	\$75
S-3157-27-2	3020-5S-E	126,000 Gallon Tank at a Small Producer	\$99
S-3157-28-1	3020-5S-D	63,000 Gallon Tank at a Small Producer	\$75
S-3157-29-1	3020-5S-D	84,000 Gallon Tank at a Small Producer	\$75
S-3157-30-1	3020-5S-C	21,000 Gallon Tank at a Small Producer	\$63
S-3157-31-1	3020-5S-C	21,000 Gallon Tank at a Small Producer	\$63
S-3157-32-1	3020-5S-C	21,000 Gallon Tank at a Small Producer	\$63
S-3157-33-1	3020-5S-C	21,000 Gallon Tank at a Small Producer	\$63
S-3157-35-0	3020-2-H	21.2 MMBtu/hour Flare	\$1,030

Appendixes

- A: Current Operating Permits
- B: Facility Diagrams
- C: Pre-Project Uncontrolled Oil Tank Emissions
- D: Post-Project Fugitive Component Emissions
- E: Flare Emissions
- F: BACT Guideline 7.3.1
- G: Ambient Air Quality Analysis
- H: Risk Management Review
- I: Draft ATCs

Appendix A

Current Operating Permits

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3157-7-0

EXPIRATION DATE: 06/30/2009

SECTION: NW01 **TOWNSHIP:** 29S **RANGE:** 26E

EQUIPMENT DESCRIPTION:

ONE 84,000 GALLON FIXED ROOF CRUDE OIL WASH TANK, #3320 (ROSEDALE RANCH)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. To maintain status as small producer, permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern county and permittee shall not engage in refining, transporting or marketing of refined petroleum products. [District Rule 3020]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
4. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]
5. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]
6. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
7. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]
8. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]
9. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623]
10. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3157-9-0

EXPIRATION DATE: 06/30/2009

SECTION: NE01 **TOWNSHIP:** 29S **RANGE:** 26E

EQUIPMENT DESCRIPTION:

ONE 84,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, #3627 (ROSEDALE RANCH)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. To maintain status as small producer, permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern county and permittee shall not engage in refining, transporting or marketing of refined petroleum products. [District Rule 3020]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
4. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]
5. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]
6. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
7. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]
8. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]
9. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623]
10. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3157-11-1

EXPIRATION DATE: 06/30/2009

SECTION: SW01 **TOWNSHIP:** 29S **RANGE:** 26E

EQUIPMENT DESCRIPTION:

ONE 84,000 GALLON FIXED ROOF CRUDE OIL STORAGE TANK, #3376 SERVED BY VAPOR CONTROL SYSTEM POWERED BY A 15 HP ELECTRICAL COMPRESSOR DISCHARGING TO FIELD GAS GATHERING SYSTEM AND SHARED WITH TANKS S-3157-27 AND '29 (ROSEDALE RANCH MAIN BATTERY)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. To maintain status as small producer, permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern county and permittee shall not engage in refining, transporting or marketing of refined petroleum products. [District Rule 3020]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
4. 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 gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device the reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Rule 4623 Section 6.4.7. [District Rule 2201]
5. VOC emission rate from vapor service components associated with tank shall not exceed 0.4 lb/day. [District Rule 2201]
6. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from tank using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2C: Oil and Gas Production Screening Value Ranges (<10,000 ppmv) Emission Factors. [District Rule 2201]
7. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with tank. [District Rule 2201]
8. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201]
9. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device the reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rules 2201]

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

10. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 2201]
11. All piping, valves, and fittings shall be constructed and maintained in a gas-tight condition. [District Rule 2201]
12. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 2201]
13. 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 2201]
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 shell and roof of the uninsulated tank for structural integrity annually. [District Rule 2210]
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 Rule 2210]
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 on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection [District Rule 2201]
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 Rule 2201]
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 Rule 2201]
19. If a component type for the tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 2201]
20. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 2201]
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 Rule 2201]
22. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rules 2020 and 2080]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rules 2020 and 2080]
24. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rules 2020 and 2080]
25. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

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

Facility Name: CRIMSON RESOURCE MANAGEMENT

Location: HEAVY OIL CENTRAL, CA

S-3157-11-1: Mar 16 2011 3:46PM - ROEDERS

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3157-27-1

EXPIRATION DATE: 06/30/2009

SECTION: SW 1 TOWNSHIP: 29S RANGE: 26E

EQUIPMENT DESCRIPTION:

3000 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-3157-11 (ROSEDALE RANCH MAIN BATTERY)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
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 gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Rule 4623 Section 6.4.7. [District Rule 2201]
3. VOC emission rate from vapor service components associated with tank shall not exceed 0.2 lb/day. [District Rule 2201]
4. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from tank using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2C: Oil and Gas Production Screening Value Ranges (<10,000 ppmv) Emission Factors. [District Rule 2201]
5. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with tank. [District Rule 2201]
6. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201]
7. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rules 2201]
8. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 2201]
9. All piping, valves, and fittings shall be constructed and maintained in a gas-tight condition. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

10. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 2201]
11. 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 2201]
12. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shell and roof of the uninsulated tank for structural integrity annually. [District Rule 2210]
13. 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 2210]
14. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection [District Rule 2201]
15. 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 2201]
16. 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 2201]
17. If a component type for the tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 2201]
18. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 2201]
19. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2201]
20. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rules 2020 and 2080]
21. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rules 2020 and 2080]
22. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rules 2020 and 2080]
23. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3157-28-0

EXPIRATION DATE: 06/30/2009

SECTION: NE 1 TOWNSHIP: 29 S RANGE: 26 E

EQUIPMENT DESCRIPTION:

ONE 1500 BBL FIXED ROOF CRUDE OIL WASH TANK AND VAPOR CONTROL SYSTEM SHARED WITH S-3157-33
(NE WASH TANK, ROSEDALE RANCH NE BATTERY)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
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 gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Rule 4623 Section 6.4.7. [District Rule 2201]
3. VOC emission rate from vapor service components associated with tank and vapor control system shall not exceed 0.6 lb/day. [District Rule 2201]
4. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from tank using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2C: Oil and Gas Production Screening Value Ranges (<10,000 ppmv) Emission Factors. [District Rule 2201]
5. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with tank. [District Rule 2201]
6. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201]
7. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rules 2201]
8. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 2201]
9. All piping, valves, and fittings shall be constructed and maintained in a gas-tight condition. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

10. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 2201]
11. 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 2201]
12. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shell and roof of the uninsulated tank for structural integrity annually. [District Rule 2210]
13. 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 2210]
14. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection [District Rule 2201]
15. 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 2201]
16. 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 2201]
17. If a component type for the tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 2201]
18. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 2201]
19. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2201]
20. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rules 2020 and 2080]
21. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rules 2020 and 2080]
22. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rules 2020 and 2080]
23. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3157-29-0

EXPIRATION DATE: 06/30/2009

SECTION: SW 1 TOWNSHIP: 29S RANGE: 26E

EQUIPMENT DESCRIPTION:

ONE 2000 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-3157-11 (ROSEDALE RANCH MAIN BATTERY)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
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 gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Rule 4623 Section 6.4.7. [District Rule 2201]
3. VOC emission rate from vapor service components associated with tank shall not exceed 0.4 lb/day. [District Rule 2201].
4. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from tank using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2C: Oil and Gas Production Screening Value Ranges (<10,000 ppmv) Emission Factors. [District Rule 2201]
5. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with tank. [District Rule 2201]
6. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201]
7. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rules 2201]
8. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 2201]
9. All piping, valves, and fittings shall be constructed and maintained in a gas-tight condition. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

10. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 2201]
11. 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 2201]
12. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shell and roof of the uninsulated tank for structural integrity annually. [District Rule 2210]
13. 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 2210]
14. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection [District Rule 2201]
15. 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 2201]
16. 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 2201]
17. If a component type for the tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 2201]
18. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 2201]
19. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2201]
20. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rules 2020 and 2080]
21. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rules 2020 and 2080]
22. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rules 2020 and 2080]
23. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

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



AUTHORITY TO CONSTRUCT

PERMIT NO: S-3157-30-0

ISSUANCE DATE: 09/02/2008

LEGAL OWNER OR OPERATOR: CRIMSON RESOURCE MANAGEMENT
MAILING ADDRESS: ENVIRONMENTAL H & S ENGINEER
5001 CALIFORNIA AVENUE, SUITE 206
BAKERSFIELD, CA 93309

LOCATION: HEAVY OIL CENTRAL
CA

SECTION: NE 1 **TOWNSHIP:** 29 S **RANGE:** 26 E

EQUIPMENT DESCRIPTION:

ONE 500 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-3157-28 (NE STOCK TANK #1, ROSEDALE RANCH NE BATTERY)

CONDITIONS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
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 gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Rule 4623 Section 6.4.7. [District Rule 2201]
3. VOC emission rate from vapor service components associated with tank shall not exceed 0.4 lb/day. [District Rule 2201]
4. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from tank using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2C: Oil and Gas Production Screening Value Ranges (<10,000 ppmv) Emission Factors. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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

Sayed Sadredin, Executive Director / APCO

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DAVID WARNER, Director of Permit Services

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5. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with tank. [District Rule 2201]
6. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201]
7. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rules 2201]
8. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 2201]
9. All piping, valves, and fittings shall be constructed and maintained in a gas-tight condition. [District Rule 2201]
10. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 2201]
11. 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 2201]
12. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shell and roof of the uninsulated tank for structural integrity annually. [District Rule 2210]
13. 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 2210]
14. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection [District Rule 2201]
15. 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 2201]
16. 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 2201]
17. If a component type for the tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 2201]
18. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

19. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2201]
20. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rules 2020 and 2080]
21. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rules 2020 and 2080]
22. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rules 2020 and 2080]
23. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]
24. ATC shall be implemented subsequent to or concurrently with ATC S-3157-28-0. [District Rule 2201]



AUTHORITY TO CONSTRUCT

PERMIT NO: S-3157-31-0

ISSUANCE DATE: 09/02/2008

LEGAL OWNER OR OPERATOR: CRIMSON RESOURCE MANAGEMENT
MAILING ADDRESS: ENVIRONMENTAL H & S ENGINEER
5001 CALIFORNIA AVENUE, SUITE 206
BAKERSFIELD, CA 93309

LOCATION: HEAVY OIL CENTRAL
CA

SECTION: NE 1 **TOWNSHIP:** 29 S **RANGE:** 26 E

EQUIPMENT DESCRIPTION:

ONE 500 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-3157-28 (NE STOCK TANK #2, ROSEDALE RANCH NE BATTERY)

CONDITIONS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
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 gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Rule 4623 Section 6.4.7. [District Rule 2201]
3. VOC emission rate from vapor service components associated with tank shall not exceed 0.4 lb/day. [District Rule 2201]
4. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from tank using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2C: Oil and Gas Production Screening Value Ranges (<10,000 ppmv) Emission Factors. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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Sayed Sadredin, Executive Director / APCO

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DAVID WARNER, Director of Permit Services

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5. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with tank. [District Rule 2201]
6. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201]
7. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rules 2201]
8. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 2201]
9. All piping, valves, and fittings shall be constructed and maintained in a gas-tight condition. [District Rule 2201]
10. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 2201]
11. 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 2201]
12. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shell and roof of the uninsulated tank for structural integrity annually. [District Rule 2210]
13. 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 2210]
14. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection [District Rule 2201]
15. 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 2201]
16. 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 2201]
17. If a component type for the tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 2201]
18. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

19. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2201]
20. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rules 2020 and 2080]
21. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rules 2020 and 2080]
22. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rules 2020 and 2080]
23. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]
24. ATC shall be implemented subsequent to or concurrently with ATC S-3157-28-0. [District Rule 2201]



AUTHORITY TO CONSTRUCT

PERMIT NO: S-3157-32-0

ISSUANCE DATE: 09/02/2008

LEGAL OWNER OR OPERATOR: CRIMSON RESOURCE MANAGEMENT
MAILING ADDRESS: ENVIRONMENTAL H & S ENGINEER
5001 CALIFORNIA AVENUE, SUITE 206
BAKERSFIELD, CA 93309

LOCATION: HEAVY OIL CENTRAL
CA

SECTION: NE 1 **TOWNSHIP:** 29 S **RANGE:** 26 E

EQUIPMENT DESCRIPTION:

ONE 500 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-3157-28 (NE BUFFER # 1, ROSEDALE RANCH NE BATTERY)

CONDITIONS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
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 gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Rule 4623 Section 6.4.7. [District Rule 2201]
3. VOC emission rate from vapor service components associated with tank shall not exceed 0.4 lb/day. [District Rule 2201]
4. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from tank using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2C: Oil and Gas Production Screening Value Ranges (<10,000 ppmv) Emission Factors. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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Sayed Sadredin, Executive Director / APCO

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DAVID WARNER, Director of Permit Services

S-3157-32-0: Mar 16 2011 3:51PM - ROEDERS : Joint Inspection NOT Required

5. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with tank. [District Rule 2201]
6. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201]
7. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rules 2201]
8. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 2201]
9. All piping, valves, and fittings shall be constructed and maintained in a gas-tight condition. [District Rule 2201]
10. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 2201]
11. 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 2201]
12. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shell and roof of the uninsulated tank for structural integrity annually. [District Rule 2210]
13. 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 2210]
14. 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 2201]
15. 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 2201]
16. 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 2201]
17. If a component type for the tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 2201]
18. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

19. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2201]
20. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rules 2020 and 2080]
21. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rules 2020 and 2080]
22. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rules 2020 and 2080]
23. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]
24. ATC shall be implemented subsequent to or concurrently with ATC S-3157-28-0. [District Rule 2201]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3157-33-0

EXPIRATION DATE: 06/30/2009

SECTION: NE 1 TOWNSHIP: 29 S RANGE: 26 E

EQUIPMENT DESCRIPTION:

ONE 500 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-3157-28 (NE BUFFER #2, ROSEDALE RANCH NE BATTERY)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
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 gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Rule 4623 Section 6.4.7. [District Rule 2201]
3. VOC emission rate from vapor service components associated with tank shall not exceed 0.4 lb/day. [District Rule 2201]
4. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from tank using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2C: Oil and Gas Production Screening Value Ranges (<10,000 ppmv) Emission Factors. [District Rule 2201]
5. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with tank. [District Rule 2201]
6. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201]
7. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rules 2201]
8. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 2201]
9. All piping, valves, and fittings shall be constructed and maintained in a gas-tight condition. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

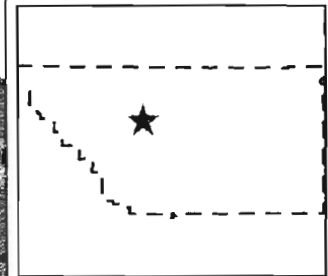
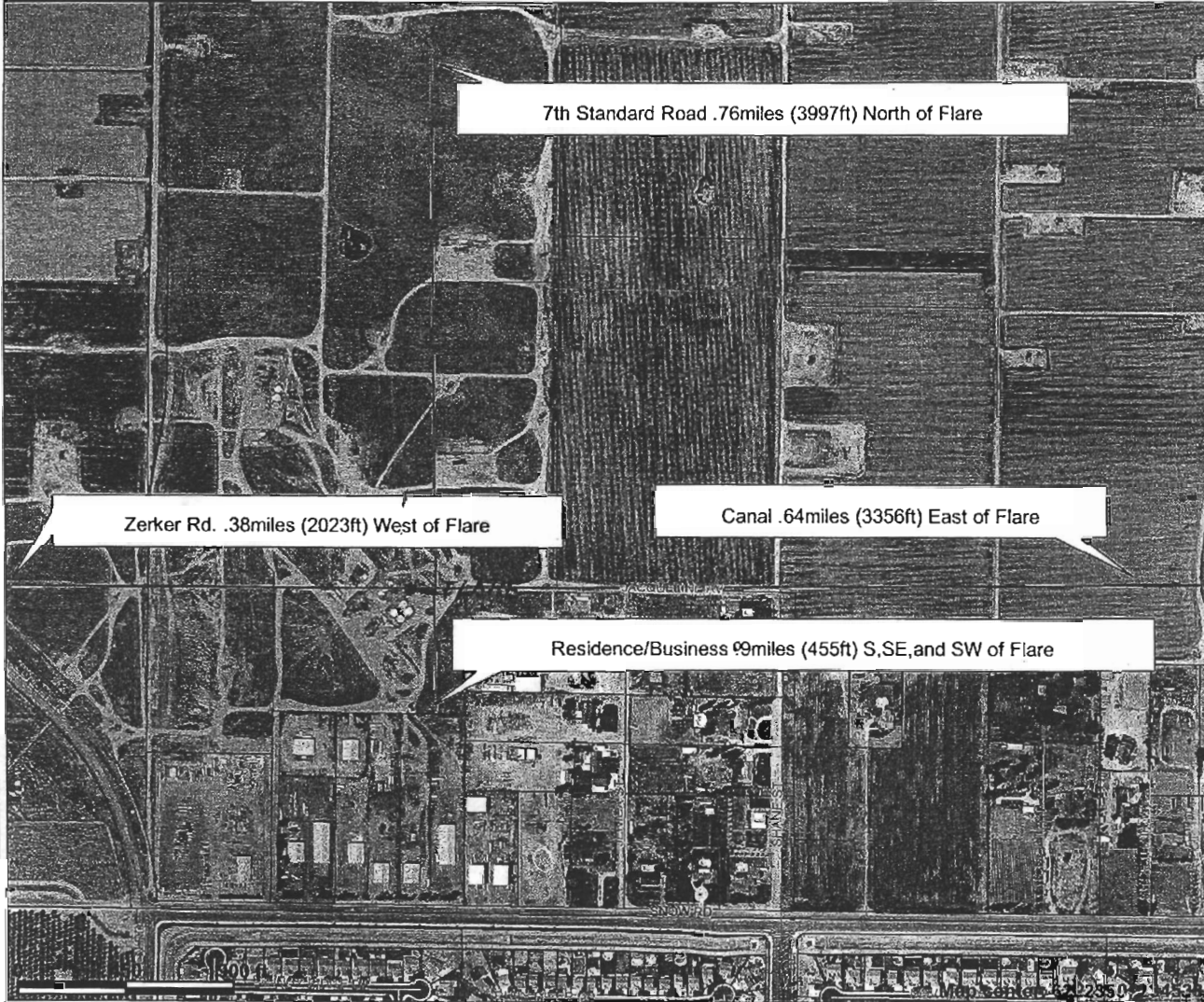
10. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 2201]
11. 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 2201]
12. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shell and roof of the uninsulated tank for structural integrity annually. [District Rule 2210]
13. 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 2210]
14. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection [District Rule 2201]
15. 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 2201]
16. 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 2201]
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18. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 2201]
19. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2201]
20. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rules 2020 and 2080]
21. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rules 2020 and 2080]
22. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rules 2020 and 2080]
23. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

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

Appendix B







Facility Diagrams


Rosedale Ranch Facility Boundaries





Legend

Roads

-  Arterial
-  Collector
-  Highway
-  Local
-  Ramp
-  Unpaved

 County of Kern

 Assessment Parcels

 Scale: 1:7,708

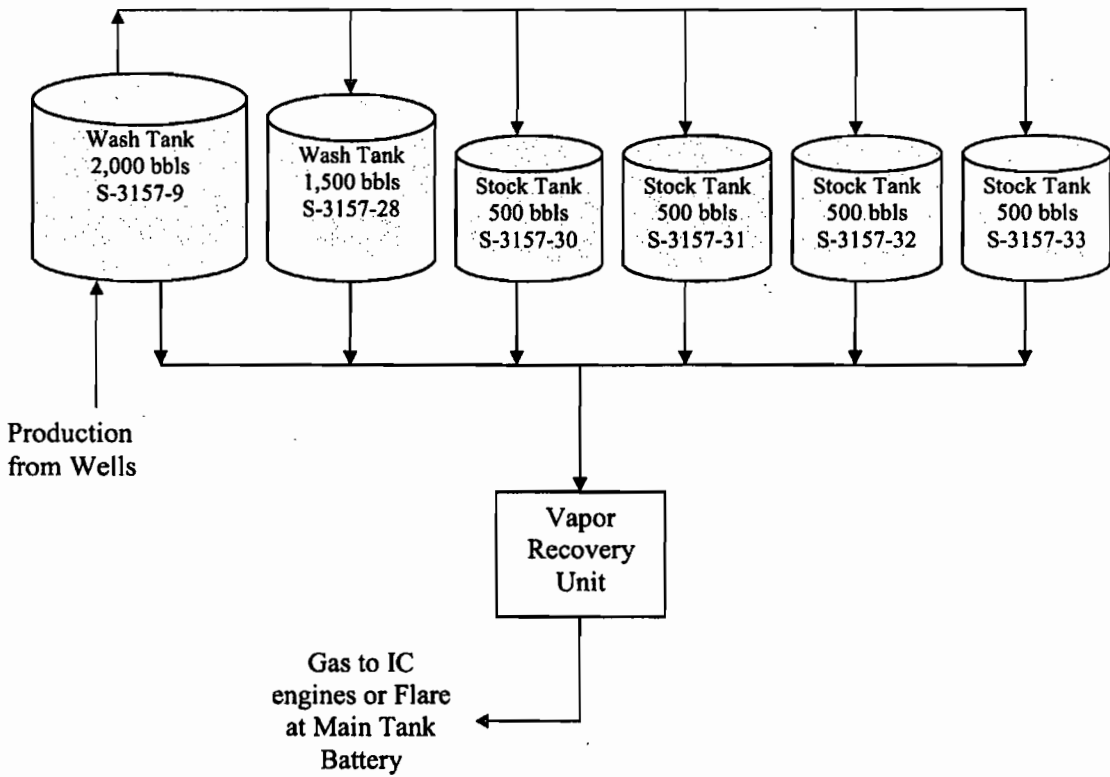
This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Crimson Resource Management



BUSINESS NAME: **Rosedale Ranch Northeast Tank Battery (NE 01/T29S/R26E)**
SCALE: NONE

Facility Diagram

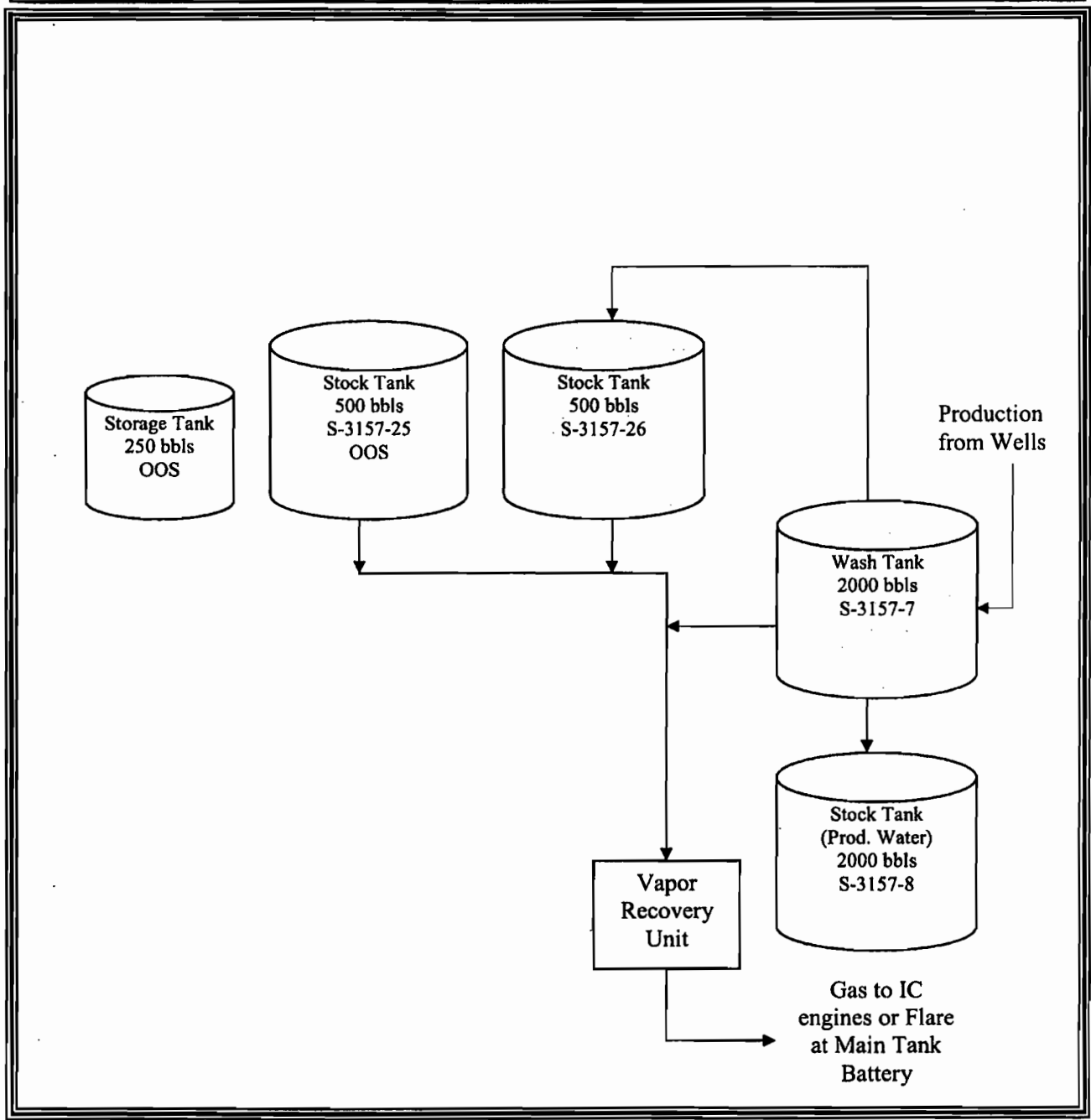


Crimson Resource Management



BUSINESS NAME: **Rosedale Ranch Northwest Tank Battery (NW 01/T29S/R26E)**
SCALE: NONE

Facility Diagram

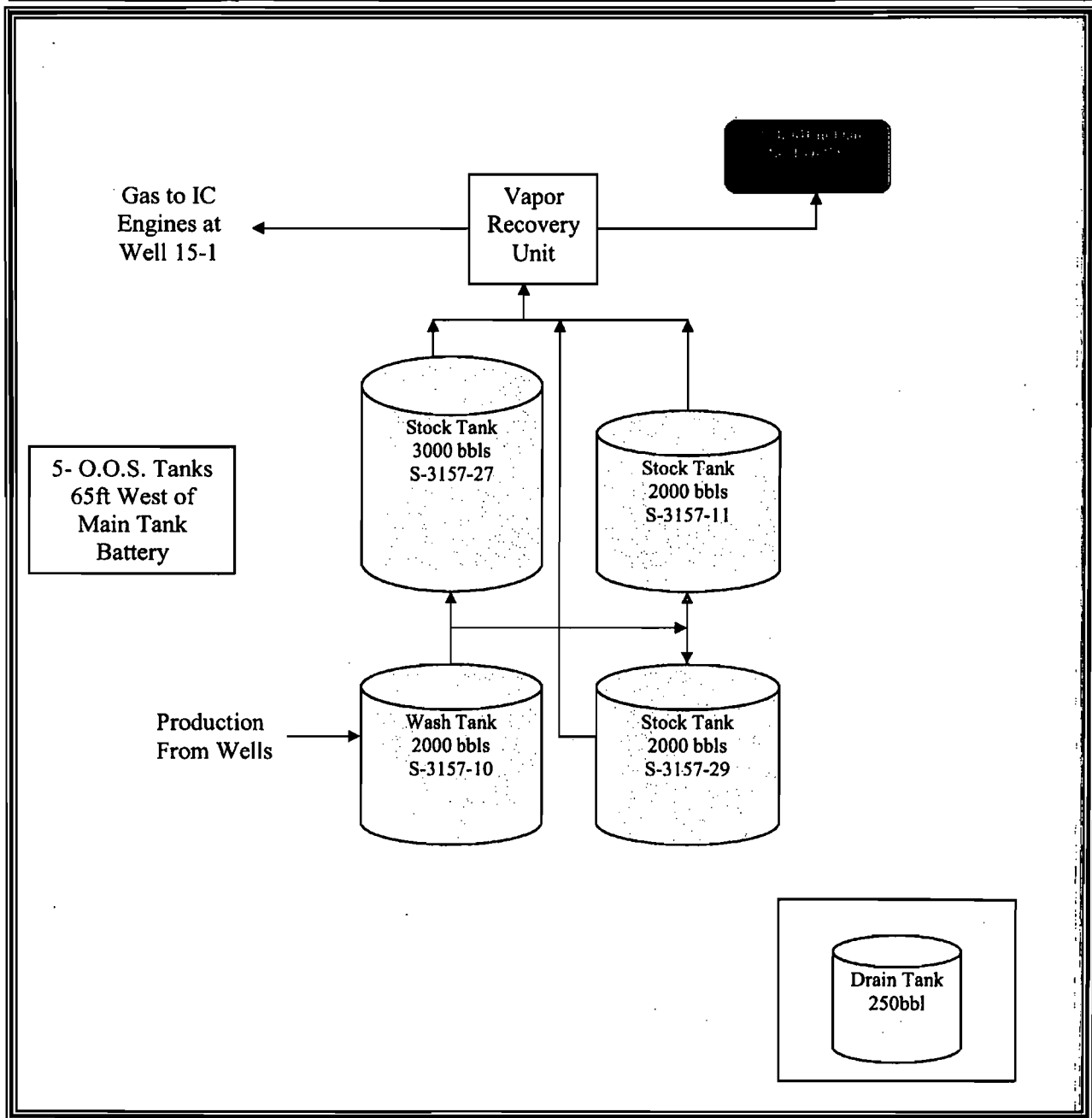


Crimson Resource Management



BUSINESS NAME: Rosedale Ranch Main Tank Battery (SW 01/T29S/R26E)
SCALE: NONE

Facility Diagram



Appendix C

Pre-Project Uncontrolled Oil Tank Emissions

Tank Input Data		
Permit number	S-3157-7	
facility tank I.D.	--	
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1	
tank ROC vapor pressure (psia)	0.5	
liquid bulk storage temperature, Tb (°F)	180	
is this a constant-level tank? {yes, no}	yes	
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	no	
breather vent pressure setting range (psi)	0.06	
diameter of tank (feet)	29.9	
capacity of tank (bbl)	2,000	
conical or dome roof? {c, d}	c	
shell height of tank (feet)	16	
average liquid height (feet)	14	
are the roof and shell the same color? {yes,no}	yes	
For roof:		
color {1:Spec Al, 2:Diff Al, 3:Light, 4:Med, 5:Red, 6:White}	4	
condition {1: Good, 2: Poor}	1	
-----This row only used if shell is different color from roof-----	3	
-----This row only used if shell is different color from roof-----	1	
Liquid Input Data		
	A	B
maximum daily fluid throughput (bbl)		2,000
maximum annual fluid throughput (bbl)		730,000
-----This row only used if flashing losses occur in this tank-----		0
-----This row only used if flashing losses occur in this tank-----		-
molecular weight, Mw (lb/lb-mol)		100
Calculated Values		
	A	B
daily maximum ambient temperature, T _{ax} (°F)		77.65
daily minimum ambient temperature, T _{an} (°F)		53.15
daily total solar insolation factor, I (Btu/ft ² -day)		1648.9
atmospheric pressure, P _a (psia)		14.47
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	143.8	3.2094
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	133.0	2.4283
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	138.4	2.7876
roof outage, H _{ro} (feet)		0.3115
vapor space volume, V _v (cubic feet)		1623.00
paint factor, alpha		0.68
vapor density, W _v (lb/cubic foot)		0.0078
daily vapor temperature range, delta T _v (degrees Rankine)		49.04
vapor space expansion factor, K _e		0.1437
Results		
	lb/year	lb/day
Standing Storage Loss	663	1.82
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	663	1.8
Summary Table		
Permit Number	S-3157-7	
Facility Tank I.D.	--	
Tank capacity (bbl)	2,000	
Tank diameter (ft)	29.9	
Tank shell height (ft)	16	
Conical or Dome Roof	Conical	
Maximum Daily Fluid Throughput (bbl/day)	2,000	
Maximum Annual Fluid Throughput (bbl/year)	730,000	
Maximum Daily Oil Throughput (bbl/day)	N/A	
Maximum Annual Oil Throughput (bbl/year)	N/A	
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	1.8	
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	663	

Tank Input Data	
Permit number	S-3157-9
facility tank I.D.	--
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.5
liquid bulk storage temperature, Tb (°F)	180
is this a constant-level tank? {yes, no}	no
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	no
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	29.9
capacity of tank (bbl)	2,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	16
average liquid height (feet)	10
are the roof and shell the same color? {yes,no}	yes
For roof:	
color {1:Spec Al, 2:Diff Al, 3:Light, 4:Med, 5:Red, 6:White}	4
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	3
-----This row only used if shell is different color from roof-----	1

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		2,000
maximum annual fluid throughput (bbl)		730,000
-----This row only used if flashing losses occur in this tank-----		0
-----This row only used if flashing losses occur in this tank-----		-
molecular weight, Mw (lb/lb-mol)		100

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		77.65
daily minimum ambient temperature, T _{an} (°F)		53.15
daily total solar insolation factor, I (Btu/ft ² -day)		1648.9
atmospheric pressure, P _a (psia)		14.47
water vapor pressure at daily maximum liquid surface temperature (T _{ix}), P _{vx} (psia)	143.8	3.2094
water vapor pressure at daily minimum liquid surface temperature (T _{in}), P _{vn} (psia)	133.0	2.4283
water vapor pressure at average liquid surface temperature (T _{ia}), P _{va} (psia)	138.4	2.7876
roof outage, H _{ro} (feet)		0.3115
vapor space volume, V _v (cubic feet)		4431.61
paint factor, alpha		0.68
vapor density, W _v (lb/cubic foot)		0.0078
daily vapor temperature range, delta T _v (degrees Rankine)		49.04
vapor space expansion factor, K _e		0.1437

Results	lb/year	lb/day
Standing Storage Loss	1,809	4.96
Working Loss	36,500	100.00
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	38,309	105.0

Summary Table	
Permit Number	S-3157-9
Facility Tank I.D.	--
Tank capacity (bbl)	2,000
Tank diameter (ft)	29.9
Tank shell height (ft)	16
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	2,000
Maximum Annual Fluid Throughput (bbl/year)	730,000
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	105.0
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	38,309

Appendix D

Post-Project Fugitive Component Emissions

Crimson Resource Management
S-3157-7-0 and 9-0

Fugitive Emissions Using Screening Emission Factors

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

*Table IV-2c. Oil and Gas Production
Screening Value Ranges Emission Factors*

Percentage of components with $\geq 10,000$ ppmv leaks allowed? 0 %
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	Component Count	Total allowable leaking components	Screening Value EF - TOC		VOC emissions (lb/day)
				< 10,000 ppmv (lb/day/source)	$\geq 10,000$ ppmv (lb/day/source)	
Valves	Gas/Light Liquid	32	0	1.852E-03	7.333E+00	0.059
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.000
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.000
Pump Seals	Gas/Light Liquid	0	0	5.270E-02	4.709E+00	0.000
	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.000
	Heavy Crude Oil	0	0	N/A	N/A	N/A
Others	Gas/Light Liquid	2	0	7.778E-03	7.281E+00	0.016
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.000
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.000
Connectors	Gas/Light Liquid	180	0	6.349E-04	1.370E+00	0.114
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.000
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.000
Flanges	Gas/Light Liquid	44	0	1.482E-03	3.228E+00	0.065
	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.000
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.000
Open-ended Lines	Gas/Light Liquid	4	0	1.270E-03	2.905E+00	0.005
	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.000
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.000

* Emission factor not available. All components from equipment type and service will be assessed as < 10,000 ppmv

Total VOC Emissions = **0.26** lb/day
= **95** lb/year

Appendix E Flare Emissions (S-3157-35-0)

Maximum daily flare heat input is 21.2 MMBtu/hr x 24 hr/day = 508.8 MMBtu/day

Maximum annual flare heat input is 508.8 MMBtu/day x 365 day/year = 185,712 MMBtu/year

Daily PE2 for the Flare (lb/day)						
NO _x	0.068	lb/MMBtu x	508.8	MMBtu/day =	34.6	lb/day
SO _x	0.0038	lb/MMBtu x	508.8	MMBtu/day =	1.9	lb/day
PM ₁₀	0.026	lb/MMBtu x	508.8	MMBtu/day =	13.2	lb/day
CO	0.37	lb/MMBtu x	508.8	MMBtu/day =	188.3	lb/day
VOC	0.063	lb/MMBtu x	508.8	MMBtu/day =	32.1	lb/day

Annual PE2 for the Flare (lb/yr)						
NO _x	0.068	lb/MMBtu x	185,712	MMBtu/yr =	12,628	lb/yr
SO _x	0.0038	lb/MMBtu x	185,712	MMBtu/yr =	706	lb/yr
PM ₁₀	0.026	lb/MMBtu x	185,712	MMBtu/yr =	4,829	lb/yr
CO	0.37	lb/MMBtu x	185,712	MMBtu/yr =	68,713	lb/yr
VOC	0.063	lb/MMBtu x	185,712	MMBtu/yr =	11,700	lb/yr

Hourly PE2 for the Flare (lb/hr) (for the AAQA)						
NO _x	0.068	lb/MMBtu x	21.2	MMBtu/hr =	1.44	lb/hr
SO _x	0.0038	lb/MMBtu x	21.2	MMBtu/hr =	0.08	lb/hr
PM ₁₀	0.026	lb/MMBtu x	21.2	MMBtu/hr =	0.55	lb/hr
CO	0.37	lb/MMBtu x	21.2	MMBtu/hr =	7.84	lb/hr
VOC	0.063	lb/MMBtu x	21.2	MMBtu/hr =	1.34	lb/hr

Appendix F

BACT Guideline 7.3.1

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 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.

Appendix G Ambient Air Quality Analysis

The following Summary is taken from the Risk Management Review in Appendix H.

A. Ambient Air Quality Analysis

The following parameters were used for the review:

Analysis Parameters Unit 35-0			
Source Type	Flare	Closest Receptor (m)	152.4
Release Height (m)	6.1	Closest Receptor Type	Business
Inside Diameter (m)	0.07	Project Location Type	Rural
Gas Exit Temperature (K)	1273	Stack Gas Velocity (m/s)	78.33

Technical Services also performed modeling for criteria pollutants CO, NO_x, SO_x, and PM₁₀; as well as the RMR. The emission rates used for criteria pollutant modeling were 7.84 lb/hr CO, 1.44 lb/hr NO_x, 0.08 lb/hr SO_x, and 0.55 lb/hr PM₁₀.

The results from the Criteria Pollutant Modeling are as follows:

B. Criteria Pollutant Modeling Results*

Values are in $\mu\text{g}/\text{m}^3$

Unit 35-0	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	Pass	X	Pass	X	X
NO _x	Pass ²	X	X	X	Pass
SO _x	Pass	Pass	X	Pass	Pass
PM ₁₀	X	X	X	Pass ¹	Pass ¹

*Results were taken from the attached PSD spreadsheets.

¹The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

²The 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.

C. Conclusion

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

Appendix H

San Joaquin Valley Air Pollution Control District

Risk Management Review

To: Steve Roeder – Permit Services
 From: Cheryl Lawler – Technical Services
 Date: March 17, 2011
 Facility Name: Crimson Resource Management
 Location: Heavy Oil Central, Section 1, Township 29S Range 26E
 Application #(s): S-3157-35-0
 Project #: S-1104982

A. RMR SUMMARY

RMR Summary			
Categories	Field Gas Powered Flare (Unit 35-0)	Project Totals	Facility Totals
Prioritization Score	0.17*	0.17*	0.36
Acute Hazard Index	N/A	N/A	N/A
Chronic Hazard Index	N/A	N/A	N/A
Maximum Individual Cancer Risk	N/A	N/A	N/A
T-BACT Required?	No		
Special Permit Conditions?	No		

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

B. RMR REPORT

I. Project Description

Technical Services received a request on March 10, 2011, to perform an Ambient Air Quality Analysis (AAQA) and a Risk Management Review (RMR) for one 21.2 MMBtu/hr field gas powered flare.

II. Analysis

For the Risk Management Review, toxic emissions from the flare were calculated using District approved emission factors for waste gas. In accordance with the District's *Risk Management Policy for Permitting New and Modified Sources* (APR 1905-1, March 2, 2001), risks from the proposed project were prioritized using the procedures in the 1990 CAPCOA Facility Prioritization Guidelines and incorporated in the District's HEART's

database. The prioritization score was less than 1.0 (see RMR Summary Table); therefore, no further analysis was necessary.

C. Ambient Air Quality Analysis

The following parameters were used for the review:

Analysis Parameters Unit 35-0			
Source Type	Flare	Closest Receptor (m)	152.4
Release Height (m)	6.1	Closest Receptor Type	Business
Inside Diameter (m)	0.07	Project Location Type	Rural
Gas Exit Temperature (K)	1273	Stack Gas Velocity (m/s)	78.33

Technical Services also performed modeling for criteria pollutants CO, NO_x, SO_x, and PM₁₀; as well as the RMR. The emission rates used for criteria pollutant modeling were 7.84 lb/hr CO, 1.44 lb/hr NO_x, 0.08 lb/hr SO_x, and 0.55 lb/hr PM₁₀.

The results from the Criteria Pollutant Modeling are as follows:

D. Criteria Pollutant Modeling Results*

Values are in µg/m³

Unit 35-0	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	Pass	X	Pass	X	X
NO _x	Pass ²	X	X	X	Pass
SO _x	Pass	Pass	X	Pass	Pass
PM ₁₀	X	X	X	Pass ¹	Pass ¹

*Results were taken from the attached PSD spreadsheets.

¹The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

²The 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.

III. Conclusion

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

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

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

Appendix I Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-3157-7-1

LEGAL OWNER OR OPERATOR: CRIMSON RESOURCE MANAGEMENT
MAILING ADDRESS: ENVIRONMENTAL H & S ENGINEER
5001 CALIFORNIA AVENUE, SUITE 206
BAKERSFIELD, CA 93309

LOCATION: HEAVY OIL CENTRAL
CA

SECTION: NW01 TOWNSHIP: 29S RANGE: 26E

EQUIPMENT DESCRIPTION:

MODIFICATION OF ONE 84,000 GALLON FIXED ROOF CRUDE OIL WASH TANK, #3320 (ROSEDALE RANCH):
CONNECT TO THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-25

CONDITIONS

1. To maintain status as small producer, permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern county and permittee shall not engage in refining, transporting or marketing of refined petroleum products. [District Rules 4623 and 3020]
2. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. This tank shall be connected to the tank vapor control system listed on tank permit S-3157-25. [District Rules 2201 and 4623]
5. This 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 the reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director APCO

DRAFT

DAVID WARNER, Director of Permit Services

S-3157-7-1; Apr 5 2011 10:41AM - ROEDERS : Joint Inspection NOT Required

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585

6. The Permittee shall maintain with the permit accurate fugitive component counts, and the resulting emissions from the tank, using "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-2c, "Oil and Gas Production Screening Value Ranges (< 10,000 ppmv) Emission Factors". [District Rule 2201]
7. VOC emission rate from vapor service components associated with this tank shall not exceed 0.3 lb/day. [District Rule 2201]
8. This tank shall be fully enclosed and maintained in a leak-free condition. [District Rules 2201 and 4623]
9. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
10. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rules 2201 and 4623]
11. The pressure-vacuum relief valve shall be set to within ten (10) percent of the maximum allowable working pressure of the tank. The pressure-vacuum relief valve shall be permanently labeled with the operating pressure settings. The pressure-vacuum relief valve shall be properly installed and maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure. [District Rule 4623]
12. 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]
13. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623]
14. 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 4623]
15. 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]
16. 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]
17. Upon detection of a gas leak, the operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623]
18. 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]
19. 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]

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CONDITIONS CONTINUE ON NEXT PAGE

20. 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]
21. 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]
22. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rule 4623]
23. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rule 4623]
24. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 1070 and 4623]

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-3157-9-1

LEGAL OWNER OR OPERATOR: CRIMSON RESOURCE MANAGEMENT
MAILING ADDRESS: ENVIRONMENTAL H & S ENGINEER
5001 CALIFORNIA AVENUE, SUITE 206
BAKERSFIELD, CA 93309

LOCATION: HEAVY OIL CENTRAL
CA

SECTION: NE01 TOWNSHIP: 29S RANGE: 26E

EQUIPMENT DESCRIPTION:

MODIFICATION OF ONE 84,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, #3627 (ROSEDALE RANCH): CONNECT TO THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-28

CONDITIONS

1. To maintain status as small producer, permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern county and permittee shall not engage in refining, transporting or marketing of refined petroleum products. [District Rules 4623 and 3020]
2. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. This tank shall be connected to the tank vapor control system listed on tank permit S-3157-28. [District Rules 2201 and 4623]
5. This 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 the reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director APCO

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DAVID WARNER, Director of Permit Services

S-3157-9-1 : Apr 5 2011 10:41AM - ROEDERS : Joint Inspection NOT Required

6. The Permittee shall maintain with the permit accurate fugitive component counts, and the resulting emissions from the tank, using "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-2c, "Oil and Gas Production Screening Value Ranges (< 10,000 ppmv) Emission Factors". [District Rule 2201]
7. VOC emission rate from vapor service components associated with this tank shall not exceed 0.3 lb/day. [District Rule 2201]
8. This tank shall be fully enclosed and maintained in a leak-free condition. [District Rules 2201 and 4623]
9. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
10. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rules 2201 and 4623]
11. The pressure-vacuum relief valve shall be set to within ten (10) percent of the maximum allowable working pressure of the tank. The pressure-vacuum relief valve shall be permanently labeled with the operating pressure settings. The pressure-vacuum relief valve shall be properly installed and maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure. [District Rule 4623]
12. 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]
13. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623]
14. 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 4623]
15. 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]
16. 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]
17. Upon detection of a gas leak, the operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623]
18. 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]
19. 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]

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CONDITIONS CONTINUE ON NEXT PAGE

20. 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]
21. 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]
22. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rule 4623]
23. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rule 4623]
24. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 1070 and 4623]

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-3157-11-2

LEGAL OWNER OR OPERATOR: CRIMSON RESOURCE MANAGEMENT
MAILING ADDRESS: ENVIRONMENTAL H & S ENGINEER
5001 CALIFORNIA AVENUE, SUITE 206
BAKERSFIELD, CA 93309

LOCATION: HEAVY OIL CENTRAL
CA

SECTION: SW01 TOWNSHIP: 29S RANGE: 26E

EQUIPMENT DESCRIPTION:

MODIFICATION OF ONE 84,000 GALLON FIXED ROOF CRUDE OIL STORAGE TANK #3376 SERVED BY VAPOR CONTROL SYSTEM POWERED BY A 15 HP ELECTRICAL COMPRESSOR DISCHARGING TO FIELD GAS GATHERING SYSTEM AND SHARED WITH TANKS S-3157-27 AND '-29 (ROSEDALE RANCH MAIN BATTERY): REMOVE TVP LIMIT OF 0.5 PSIA

CONDITIONS

1. To maintain status as small producer, permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern county and permittee shall not engage in refining, transporting or marketing of refined petroleum products. [District Rules 4623 and 3020]
2. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. This tank shall be equipped with a vapor control 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 the reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director APCO

DRAFT

DAVID WARNER, Director of Permit Services

S-3157-11-2: Apr 5 2011 10:41AM - ROEDERS : Joint Inspection NOT Required

5. The Permittee shall maintain with the permit accurate fugitive component counts, and the resulting emissions from the tank, using "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-2c, "Oil and Gas Production Screening Value Ranges (< 10,000 ppmv) Emission Factors". [District Rule 2201]
6. VOC emission rate from vapor service components associated with this tank shall not exceed 0.4 lb/day. [District Rule 2201]
7. This tank shall be fully enclosed and maintained in a leak-free condition. [District Rules 2201 and 4623]
8. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
9. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rules 2201 and 4623]
10. The pressure-vacuum relief valve shall be set to within ten (10) percent of the maximum allowable working pressure of the tank. The pressure-vacuum relief valve shall be permanently labeled with the operating pressure settings. The pressure-vacuum relief valve shall be properly installed and maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure. [District Rule 4623]
11. 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]
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 Rule 4623]
13. 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 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 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 Rule 4623]
16. Upon detection of a gas leak, the operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 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 Rule 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 Rule 4623]

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CONDITIONS CONTINUE ON NEXT PAGE

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 Rule 4623]
20. 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]
21. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rule 4623]
22. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rule 4623]
23. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 1070 and 4623]

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-3157-27-2

LEGAL OWNER OR OPERATOR: CRIMSON RESOURCE MANAGEMENT
MAILING ADDRESS: ENVIRONMENTAL H & S ENGINEER
5001 CALIFORNIA AVENUE, SUITE 206
BAKERSFIELD, CA 93309

LOCATION: HEAVY OIL CENTRAL
CA

SECTION: SW 1 TOWNSHIP: 29S RANGE: 26E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 3,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-11 (ROSEDALE RANCH MAIN BATTERY): REMOVE TVP LIMIT OF 0.5 PSIA

CONDITIONS

1. To maintain status as small producer, permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern county and permittee shall not engage in refining, transporting or marketing of refined petroleum products. [District Rules 4623 and 3020]
2. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. This tank shall be connected to the tank vapor control system listed on tank permit S-3157-11. [District Rules 2201 and 4623]
5. This 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 the reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director APCO

DRAFT

DAVID WARNER, Director of Permit Services

S-3157-27-2 : Apr 6 2011 10:42AM - ROEDERS : Joint Inspection NOT Required

6. The Permittee shall maintain with the permit accurate fugitive component counts, and the resulting emissions from the tank, using "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-2c, "Oil and Gas Production Screening Value Ranges (< 10,000 ppmv) Emission Factors". [District Rule 2201]
7. VOC emission rate from vapor service components associated with this tank shall not exceed 0.2 lb/day. [District Rule 2201]
8. This tank shall be fully enclosed and maintained in a leak-free condition. [District Rules 2201 and 4623]
9. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
10. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rules 2201 and 4623]
11. The pressure-vacuum relief valve shall be set to within ten (10) percent of the maximum allowable working pressure of the tank. The pressure-vacuum relief valve shall be permanently labeled with the operating pressure settings. The pressure-vacuum relief valve shall be properly installed and maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure. [District Rule 4623]
12. 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]
13. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623]
14. 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 4623]
15. 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]
16. 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]
17. Upon detection of a gas leak, the operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623]
18. 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]
19. 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]

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CONDITIONS CONTINUE ON NEXT PAGE

20. 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]
21. 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]
22. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rule 4623]
23. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rule 4623]
24. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 1070 and 4623]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-3157-28-1

LEGAL OWNER OR OPERATOR: CRIMSON RESOURCE MANAGEMENT
MAILING ADDRESS: ENVIRONMENTAL H & S ENGINEER
5001 CALIFORNIA AVENUE, SUITE 206
BAKERSFIELD, CA 93309

LOCATION: HEAVY OIL CENTRAL
CA

SECTION: NE 1 TOWNSHIP: 29 S RANGE: 26 E

EQUIPMENT DESCRIPTION:

MODIFICATION OF ONE 1,500 BBL FIXED ROOF CRUDE OIL WASH TANK AND TANK VAPOR CONTROL SYSTEM SHARED WITH S-3157-33 (NE WASH TANK, ROSEDALE RANCH NE BATTERY): REMOVE TVP LIMIT OF 0.5 PSIA

CONDITIONS

1. To maintain status as small producer, permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern county and permittee shall not engage in refining, transporting or marketing of refined petroleum products. [District Rules 4623 and 3020]
2. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. This tank shall be equipped with a vapor control 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 the reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]
5. The Permittee shall maintain with the permit accurate fugitive component counts, and the resulting emissions from the tank, using "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-2c, "Oil and Gas Production Screening Value Ranges (< 10,000 ppmv) Emission Factors". [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-6500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

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DAVID WARNER, Director of Permit Services
S-3157-28-1: Apr 5 2011 10:42AM - ROEDERS : Joint Inspection NOT Required

6. VOC emission rate from vapor service components associated with this tank shall not exceed 0.6 lb/day. [District Rule 2201]
7. This tank shall be fully enclosed and maintained in a leak-free condition. [District Rules 2201 and 4623]
8. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
9. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rules 2201 and 4623]
10. The pressure-vacuum relief valve shall be set to within ten (10) percent of the maximum allowable working pressure of the tank. The pressure-vacuum relief valve shall be permanently labeled with the operating pressure settings. The pressure-vacuum relief valve shall be properly installed and maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure. [District Rule 4623]
11. 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]
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 Rule 4623]
13. 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 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 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 Rule 4623]
16. Upon detection of a gas leak, the operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 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 Rule 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 Rule 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 Rule 4623]
20. 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]

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CONDITIONS CONTINUE ON NEXT PAGE

21. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rule 4623]
22. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rule 4623]
23. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 1070 and 4623]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-3157-29-1

LEGAL OWNER OR OPERATOR: CRIMSON RESOURCE MANAGEMENT
MAILING ADDRESS: ENVIRONMENTAL H & S ENGINEER
5001 CALIFORNIA AVENUE, SUITE 206
BAKERSFIELD, CA 93309

LOCATION: HEAVY OIL CENTRAL
CA

SECTION: SW 1 **TOWNSHIP:** 29S **RANGE:** 26E

EQUIPMENT DESCRIPTION:

MODIFICATION OF ONE 2,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-11 (ROSEDALE RANCH MAIN BATTERY): REMOVE TVP LIMIT OF 0.5 PSIA

CONDITIONS

1. To maintain status as small producer, permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern county and permittee shall not engage in refining, transporting or marketing of refined petroleum products. [District Rules 4623 and 3020]
2. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. This tank shall be connected to the tank vapor control system listed on tank permit S-3157-11. [District Rules 2201 and 4623]
5. This 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 the reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director APCO

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DAVID WARNER, Director of Permit Services

S-3157-29-1: Apr 5 2011 10:42AM - ROEDERS : Joint Inspection NOT Required

6. The Permittee shall maintain with the permit accurate fugitive component counts, and the resulting emissions from the tank, using "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-2c, "Oil and Gas Production Screening Value Ranges (< 10,000 ppmv) Emission Factors". [District Rule 2201]
7. VOC emission rate from vapor service components associated with this tank shall not exceed 0.4 lb/day. [District Rule 2201]
8. This tank shall be fully enclosed and maintained in a leak-free condition. [District Rules 2201 and 4623]
9. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
10. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rules 2201 and 4623]
11. The pressure-vacuum relief valve shall be set to within ten (10) percent of the maximum allowable working pressure of the tank. The pressure-vacuum relief valve shall be permanently labeled with the operating pressure settings. The pressure-vacuum relief valve shall be properly installed and maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure. [District Rule 4623]
12. 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]
13. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623]
14. 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 4623]
15. 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]
16. 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]
17. Upon detection of a gas leak, the operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623]
18. 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]
19. 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]

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CONDITIONS CONTINUE ON NEXT PAGE

20. 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]
21. 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]
22. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rule 4623]
23. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rule 4623]
24. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 1070 and 4623]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-3157-30-1

LEGAL OWNER OR OPERATOR: CRIMSON RESOURCE MANAGEMENT
MAILING ADDRESS: ENVIRONMENTAL H & S ENGINEER
5001 CALIFORNIA AVENUE, SUITE 206
BAKERSFIELD, CA 93309

LOCATION: HEAVY OIL CENTRAL
CA

SECTION: NE 1 **TOWNSHIP:** 29 S **RANGE:** 26 E

EQUIPMENT DESCRIPTION:

MODIFICATION OF ONE 500 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-28 (NE STOCK TANK #1, ROSEDALE RANCH NE BATTERY): REMOVE TVP LIMIT OF 0.5 PSIA

CONDITIONS

1. Prior to the implementation of this Authority to Construct (ATC), ATC S-3157-30-0 shall be implemented. [District Rule 2201]
2. To maintain status as small producer, permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern county and permittee shall not engage in refining, transporting or marketing of refined petroleum products. [District Rules 4623 and 3020]
3. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. This tank shall be connected to the tank vapor control system listed on tank permit S-3157-28. [District Rules 2201 and 4623]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director APCO

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DAVID WARNER, Director of Permit Services

S-3157-30-1: Apr 5 2011 10:42AM - ROEDERS : Joint Inspection NOT Required

6. This 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 99% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]
7. The Permittee shall maintain with the permit accurate fugitive component counts, and the resulting emissions from the tank, using "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-2c, "Oil and Gas Production Screening Value Ranges (< 10,000 ppmv) Emission Factors". [District Rule 2201]
8. VOC emission rate from vapor service components associated with this tank shall not exceed 0.4 lb/day. [District Rule 2201]
9. This tank shall be fully enclosed and maintained in a leak-free condition. [District Rules 2201 and 4623]
10. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
11. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rules 2201 and 4623]
12. The pressure-vacuum relief valve shall be set to within ten (10) percent of the maximum allowable working pressure of the tank. The pressure-vacuum relief valve shall be permanently labeled with the operating pressure settings. The pressure-vacuum relief valve shall be properly installed and maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure. [District Rule 4623]
13. 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]
14. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623]
15. 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 4623]
16. 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]
17. 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]
18. Upon detection of a gas leak, the operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623]
19. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623]

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CONDITIONS CONTINUE ON NEXT PAGE

20. 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]
21. 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]
22. 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]
23. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rule 4623]
24. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rule 4623]
25. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 1070 and 4623]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-3157-31-1

LEGAL OWNER OR OPERATOR: CRIMSON RESOURCE MANAGEMENT
MAILING ADDRESS: ENVIRONMENTAL H & S ENGINEER
5001 CALIFORNIA AVENUE, SUITE 206
BAKERSFIELD, CA 93309

LOCATION: HEAVY OIL CENTRAL
CA

SECTION: NE 1 TOWNSHIP: 29 S RANGE: 26 E

EQUIPMENT DESCRIPTION:

MODIFICATION OF ONE 500 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-28 (NE STOCK TANK #2, ROSEDALE RANCH NE BATTERY): REMOVE TVP LIMIT OF 0.5 PSIA

CONDITIONS

1. Prior to the implementation of this Authority to Construct (ATC), ATC S-3157-31-0 shall be implemented. [District Rule 2201]
2. To maintain status as small producer, permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern county and permittee shall not engage in refining, transporting or marketing of refined petroleum products. [District Rules 4623 and 3020]
3. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. This tank shall be connected to the tank vapor control system listed on tank permit S-3157-28. [District Rules 2201 and 4623]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director, APCO

DAVID WARNER, Director of Permit Services

S-3157-31-1: Apr 5 2011 10:42AM - ROEDERS : Joint Inspection NOT Required

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585

6. This 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 99% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]
7. The Permittee shall maintain with the permit accurate fugitive component counts, and the resulting emissions from the tank, using "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-2c, "Oil and Gas Production Screening Value Ranges (< 10,000 ppmv) Emission Factors". [District Rule 2201]
8. VOC emission rate from vapor service components associated with this tank shall not exceed 0.4 lb/day. [District Rule 2201]
9. This tank shall be fully enclosed and maintained in a leak-free condition. [District Rules 2201 and 4623]
10. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
11. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rules 2201 and 4623]
12. The pressure-vacuum relief valve shall be set to within ten (10) percent of the maximum allowable working pressure of the tank. The pressure-vacuum relief valve shall be permanently labeled with the operating pressure settings. The pressure-vacuum relief valve shall be properly installed and maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure. [District Rule 4623]
13. 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]
14. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623]
15. 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 4623]
16. 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]
17. 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]
18. Upon detection of a gas leak, the operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623]
19. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623]

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CONDITIONS CONTINUE ON NEXT PAGE

20. 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]
21. 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]
22. 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]
23. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rule 4623]
24. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rule 4623]
25. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 1070 and 4623]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-3157-32-1

LEGAL OWNER OR OPERATOR: CRIMSON RESOURCE MANAGEMENT
MAILING ADDRESS: ENVIRONMENTAL H & S ENGINEER
5001 CALIFORNIA AVENUE, SUITE 206
BAKERSFIELD, CA 93309

LOCATION: HEAVY OIL CENTRAL
CA

SECTION: NE 1 TOWNSHIP: 29 S RANGE: 26 E

EQUIPMENT DESCRIPTION:

MODIFICATION OF ONE 500 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-28 (NE BUFFER # 1, ROSEDALE RANCH NE BATTERY): REMOVE TVP LIMIT OF 0.5 PSIA

CONDITIONS

1. Prior to the implementation of this Authority to Construct (ATC), ATC S-3157-32-0 shall be implemented. [District Rule 2201]
2. To maintain status as small producer, permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern county and permittee shall not engage in refining, transporting or marketing of refined petroleum products. [District Rules 4623 and 3020]
3. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. This tank shall be connected to the tank vapor control system listed on tank permit S-3157-28. [District Rules 2201 and 4623]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director APCO

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DAVID WARNER, Director of Permit Services

S-3157-32-1 : Apr 5 2011 10:42AM - ROEDERS : Joint Inspection NOT Required

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6. This 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 99% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]
7. The Permittee shall maintain with the permit accurate fugitive component counts, and the resulting emissions from the tank, using "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-2c, "Oil and Gas Production Screening Value Ranges (< 10,000 ppmv) Emission Factors". [District Rule 2201]
8. VOC emission rate from vapor service components associated with this tank shall not exceed 0.4 lb/day. [District Rule 2201]
9. This tank shall be fully enclosed and maintained in a leak-free condition. [District Rules 2201 and 4623]
10. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
11. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rules 2201 and 4623]
12. The pressure-vacuum relief valve shall be set to within ten (10) percent of the maximum allowable working pressure of the tank. The pressure-vacuum relief valve shall be permanently labeled with the operating pressure settings. The pressure-vacuum relief valve shall be properly installed and maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure. [District Rule 4623]
13. 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]
14. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623]
15. 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 4623]
16. 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]
17. 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]
18. Upon detection of a gas leak, the operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623]
19. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623]

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CONDITIONS CONTINUE ON NEXT PAGE

20. 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]
21. 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]
22. 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]
23. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rule 4623]
24. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rule 4623]
25. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 1070 and 4623]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-3157-33-1

LEGAL OWNER OR OPERATOR: CRIMSON RESOURCE MANAGEMENT
MAILING ADDRESS: ENVIRONMENTAL H & S ENGINEER
5001 CALIFORNIA AVENUE, SUITE 206
BAKERSFIELD, CA 93309

LOCATION: HEAVY OIL CENTRAL
CA

SECTION: NE 1 TOWNSHIP: 29 S RANGE: 26 E

EQUIPMENT DESCRIPTION:

MODIFICATION OF ONE 500 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY THE TANK VAPOR CONTROL SYSTEM LISTED ON S-3157-28 (NE BUFFER #2, ROSEDALE RANCH NE BATTERY): REMOVE TVP LIMIT OF 0.5 PSIA

CONDITIONS

1. Prior to the implementation of this Authority to Construct (ATC), ATC S-3157-33-0 shall be implemented. [District Rule 2201]
2. To maintain status as small producer, permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern county and permittee shall not engage in refining, transporting or marketing of refined petroleum products. [District Rules 4623 and 3020]
3. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. This tank shall be connected to the tank vapor control system listed on tank permit S-3157-28. [District Rules 2201 and 4623]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director APCO

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DAVID WARNER, Director of Permit Services

S-3157-33-1 : Apr 5 2011 10:42AM - ROEDERS : Joint Inspection NOT Required

6. This 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 99% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]
7. The Permittee shall maintain with the permit accurate fugitive component counts, and the resulting emissions from the tank, using "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-2c, "Oil and Gas Production Screening Value Ranges (< 10,000 ppmv) Emission Factors". [District Rule 2201]
8. VOC emission rate from vapor service components associated with this tank shall not exceed 0.4 lb/day. [District Rule 2201]
9. This tank shall be fully enclosed and maintained in a leak-free condition. [District Rules 2201 and 4623]
10. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
11. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rules 2201 and 4623]
12. The pressure-vacuum relief valve shall be set to within ten (10) percent of the maximum allowable working pressure of the tank. The pressure-vacuum relief valve shall be permanently labeled with the operating pressure settings. The pressure-vacuum relief valve shall be properly installed and maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure. [District Rule 4623]
13. 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]
14. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623]
15. 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 4623]
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17. 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]
18. Upon detection of a gas leak, the operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623]
19. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623]

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CONDITIONS CONTINUE ON NEXT PAGE

20. 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]
21. 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]
22. 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]
23. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rule 4623]
24. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rule 4623]
25. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 1070 and 4623]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT
ISSUANCE DATE: DRAFT

PERMIT NO: S-3157-35-0

LEGAL OWNER OR OPERATOR: CRIMSON RESOURCE MANAGEMENT
MAILING ADDRESS: ENVIRONMENTAL H & S ENGINEER
5001 CALIFORNIA AVENUE, SUITE 206
BAKERSFIELD, CA 93309

LOCATION: HEAVY OIL CENTRAL
CA

SECTION: 1 TOWNSHIP: 29S RANGE: 26E

EQUIPMENT DESCRIPTION:

21.2 MMBTU/HR FLARE SERVING THE TANK VAPOR CONTROL SYSTEMS LISTED ON PERMITS '-11, '-25, AND '-28

CONDITIONS

1. Authorities to Construct (ATCs) S-3157-7-1 and 9-1 shall be implemented prior to or concurrently with the implementation of this ATC. [District Rule 2201]
2. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1, or 20% opacity. [District Rule 4101]
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. Maximum flare heat input shall not exceed 21.2 MMBtu/hr. [District Rule 2201]
6. Emissions shall not exceed any of the following limits: 0.068 lb·NO_x/MMBtu, 0.0038 lb·SO_x/MMBtu, 0.026 lb·PM₁₀/MMBtu, 0.37 lb·CO/MMBtu or 0.063 lb·VOC/MMBtu. [District Rule 2201]
7. The sulfur content of the gas being incinerated shall not exceed 1 grain total Sulfur per 100 scf of gas. [District Rule 2201]
8. The flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311]
9. The outlet shall be equipped with an automatic ignition system. [District Rule 4311]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

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DAVID WARNER, Director of Permit Services
S-3157-35-0: Apr 5 2011 10:42AM - ROEDERS : Joint Inspection NOT Required

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585

10. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311]
11. Effective on and after July 1, 2011, 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. This standard shall not apply if the APCO determines that the flaring is caused by an emergency as defined by Section 3.7 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere. [District Rule 4311]
12. The operator shall submit a flare minimization plan to the District for approval that includes all of the data required under Section 6.5 of Rule 4311 prior to installing the equipment authorized by this Authority to Construct. [District Rule 4311]
13. Effective on and after July 1, 2011, 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. [District Rule 4311]
14. Records of the gas sulfur content and required gas flow measurements shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]

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