



Curt Eknoian
HSE Air & GHG

San Joaquin Valley BAEC
Chevron NAEP
PO Box 1392 Bakersfield, CA 93302

June 22, 2026

Variance Coordinator
San Joaquin Valley Air Pollution Control District
1990 East Gettysburg Avenue
Fresno, CA 93726

Short Variance for the CAHN3 Oil Cleaning Plant (OCP)

Dear Variance Coordinator:

Your assistance is requested to schedule for a Short Variance to be heard on August 12, 2026, Southern Region Hearing Board Meeting. The short variance will allow for the shutdown of the CAHN3 Oil Cleaning plant's tank vapor recovery system (VRS) serving the facility, while work is done to replace piping serving tanks S-2010-23, 25, 201, 204, 203, 205, 206, 207, 209, 210, 211, 212, 213, 214, 217, 220, 226, 228, and 319. This repair of the CAHN3 VRS will cause the VRS to lose its ability to operate as designed. Details of these activities found in the attached petition.

A Short Variance period of 336 non-consecutive hours is requested to occur over a 90-day period.

Chevron's petition is attached. Please have the District Accounting Staff invoice the filing fee to CUSA and we will pay the fee using our invoice system.

Please telephone Curt Eknoian at (661) 565-5317, if there are questions.

Sincerely,
Curt Eknoian
Curt Eknoian
HSE Specialist – Air & GHG

1. Variance Petition
Attachments

PETITION FOR A HEARING
BEFORE THE HEARING BOARD OF THE
SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

☐ Northern Region Office
4800 Enterprise Way
Modesto, CA 95356

☐ Central Region Office
1990 E. Gettysburg Ave.
Fresno, CA 93726

☒ Southern Region Office
34946 Flyover Court
Bakersfield, CA 93308

TYPE OF HEARING

FEES (Non-Refundable)

☒ A.	Short Variance (90 Days or Less)	\$ 987.00
☐ B.	Interim & Short Variance	\$1443.00
☐ C.	Emergency Variance	\$ 343.00
☐ D.	Regular Variance	\$1136.00
☐ E.	Interim & Regular Variance	\$1592.00
☐ F.	Appeal Hearing	\$1136.00
☐ G.	Extension of Variance	\$ 456.00
☐ H.	Modification of Variance	\$ 456.00
☐ I.	Modification of Variance Schedule of Progress	\$ 456.00
☐ J.	Product Variance	\$1515.00
☐ K.	Rehearing	\$1136.00
☐ L.	Revocation of Variance	\$ 456.00
☐ M.	Special Hearing	\$1136.00

In addition to the filing fee above, an excess emissions fee will be assessed at the conclusion of the variance at \$3.00 per pound on the excess emissions emitted during the variance period. Additionally, a \$3.75 per pound mitigation fee will be assessed if excess emissions are greater than 2000 pounds.

A. NAME OF FACILITY: Chevron USA, Inc.

PHYSICAL ADDRESS OF FACILITY: 15255 Lost Hills Road

CITY: Lost Hills STATE: CA ZIP CODE: 93249

NAME OF PERSON FILLING OUT PETITION: Curt Eknoian

TELEPHONE: (661) 565-5317 E-MAIL: eknc@chevron.com

NAME OF PERSON AUTHORIZED TO RECEIVE NOTICES: Jeff Eldridge

MAILING ADDRESS: PO Box 1392

CITY: Bakersfield STATE: CA ZIP CODE: 93302

TELEPHONE: (661) 619-9628 E-MAIL: JEldridge@chevron.com

B. TYPE OF ENTITY (Check One)

☐ LLC

☐ Partnership

☒ Corporation

☐ Other Entity

Please include the name, title, and address of officers, if a corporation; partners, if a partnership; or the person(s) in control, if other entity.

(Attach additional sheets, if needed)

NAME	TITLE	ADDRESS
Jeff Eldridge	HSE Manager	1546 China Grade Loop Bakersfield CA. 93308

In accordance with State Law, the District will provide assistance to small businesses in preparing and filing the petition for the hearing. Small business has the same meaning as defined in the Small Business Administration, except that no stationary source which is a major source can be a small business.

If you plan on having attendees participate via the video teleconferencing system in a region other than that of which you filed the petition, please check the box(s) below for the region they will be participating:

☒ Bakersfield

☐ Fresno

☐ Modesto

1. Describe the type of business conducted at your facility.

Oil and gas production.

2. Describe in detail the equipment or activity that is the subject of this petition, what the equipment is used for, and why it is necessary to the operation of your facility. Include all pertinent information necessary to describe the activity including: fuels burned, raw materials processed, product produced, true vapor pressure of all volatile organic compounds, site diagrams, material flow charts, fuel systems, and diagrams of air pollution control systems if necessary. Provide photos as well.

This variance petition affects the permit units S-2010-23, 25, 201, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 217, 220, 228, and 319. The facility utilizes a series of tanks to receive, process, and ship crude oil production. The tanks are connected to a vapor recovery system (VRS) that sends collected vapors to sales or a disposal device. The vapor recovery unit collection piping serving the S-2010 mentioned tanks needs to be replaced. The line needing replacement and the associated VRS will be isolated. Once the line replacement work has been completed, the vapor control line serving the above equipment will be returned to normal service. CUSA is seeking a Short Variance to allow the permitted tanks to continue to store crude oil that are not served by a VRS and to allow the tanks to vent while CUSA performs the work described above. CUSA estimates the work to take no more than 336 non-consecutive hours (14 days).

3. List all the District Permits to Operate and/or Authorities to Construct and the corresponding permit conditions for which you are requesting variance protection and **explain** how you are violating, or will violate the condition(s). Please list the current version(s).

See addendum

4. List all District Rule numbers, including subsections, for which you are requesting variance protection and **explain** how you are violating or will violate the rule(s).

District Rule # 2080, 2201, 2520, and 4623. Isolation of tanks from tank vapor recovery system (TVRS) for maintenance line replacement will violate requirements that the TVRS be operated at all times on tanks to control VOC emissions.

5. Why is it beyond your reasonable control to comply with the rule(s) and/or permit condition(s)?

CUSA needs to conduct maintenance/repair work that requires a disconnect of the CAHN3 tank vapor recovery system (TVRS).

6. What would be the harm to your business if the variance were not granted? Include business closure, economic losses in dollar amounts, breach of contracts, hardships on customers, employee lay-offs, loss of market share to competitors, etc.

If the variance is not granted, Chevron will be required to shut in production wells and will need to drain and clean tanks subject to this petition. Shutting in production of approximately 4,800 barrels of oil per day will result in lost revenue of approximately \$337,920 per day based on a crude oil price of \$70.40 per barrel (posted price of equivalent quality Buena Vista Hills crude oil on June 18, 2026), as well as incurring the cost of cleaning the tanks.

7. What date, and under what circumstances, did your facility first become aware that it would **not** be in compliance?

The shutdown (and therefore non-compliance) will occur when performing the maintenance/repair activities identified in Section 2.

8. What actions have you taken since that time to achieve compliance?

The proposed disconnect has not yet occurred.

9. Explain what options have been evaluated towards curtailment or termination of operations in lieu of obtaining a variance.

If the variance is not granted, CUSA will be required to shut in production. The economic loss of this is described in Section 6.
Termination of operations will result in undue burden on customers. Oil/gas produced from the affected operations is a daily necessity for our customers' businesses and consumers.

10. Estimate the excess emissions in total pounds over the duration of the variance period.
Estimate the maximum amount of excess emissions that will occur.

Pollutant	Pollutant Limit	Actual Emissions	<i>Excess emissions are those that are in excess of the rules or permit conditions or otherwise lawfully allowed</i>	Total Estimated Excess Emissions
VOC	642.0	6.4		635.5
NO _x				
CO				
SO _x				
PM ₁₀				
PM _{2.5}				

Highest Opacity level anticipated: 0 %

11. Show all calculations and provide references for emission factors used in estimating excess emissions.

Since the API gravity for the crude oil is less than 26 degrees, uncontrolled tank VOC emissions have been calculated using the Tank Emissions - Fixed Roof Crude Oil less than 26 API spreadsheet developed by the District to calculate emissions from heavy oil tanks. The emission calculations use tank information, current production information, and the HOST vapor pressure data. The emissions from receiving crude oil from wells with closed vents are represented as flashing losses by the spreadsheet.

The excess emission assumptions and calculations are attached.

12. Explain how you can reduce or mitigate excess emissions during the variance period. (such as shutting equipment down or reducing production to offset excess emissions)

CUSA will plan the project such that potential vapor control system isolation period is minimized and will operate the tanks at a constant level to the extent possible, thereby minimizing working losses.

13. If there are excessive hazardous or toxic emissions, attach a health risk assessment and receptor modeling data.

14. Can you monitor or quantify emission levels from the subject equipment or activity during the variance period and make such records available to the District? Source tests, engineering tests, or portable emission analyzers can be utilized.
Yes: ☐ No: ☒ Provide an explanation of your response.

CUSA will monitor the amount of time the vapor control system is disconnected from the tanks and estimate emissions using the methods utilized to estimate emissions in Section 11.

15. How do you intend to achieve compliance with the rules or permit conditions? Include a detailed description of any equipment to be installed and/or modifications to be made, a listing of the dates by which the actions will be completed, and an estimate of the total cost, if available.

CUSA is currently in compliance with rules, regulations and permit conditions. However, while the work in Section 2 is completed, the tanks may have increased emissions.

Once the work described in Section 2 is complete, the vapor recovery system and casing collection system will operate as required, allowing CUSA to achieve compliance with permit conditions and District rules and regulations.

16. State the dates you are requesting the variance to begin and end (the end date should be the date you expect to achieve compliance with the rules, regulations, and permit conditions). Please overestimate the time needed to allow for any contingencies.

Begin variance: August 12, 2026 End variance: November 10, 2026

17. Please state if you need special time designations. For example: "We need 15 non-consecutive days between such and such date."

Chevron is requesting 336 non-consecutive hours to occur between August 12, 2026 and November 10, 2026

18. If a variance, or series of variances, is to extend beyond one year, you must attach a Schedule of Increments of Progress pursuant to Rule 5050 –*Compliance Schedule* which must specify certain dates or milestones to be met in achieving compliance.

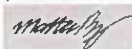
19. List the names of any District personnel who are familiar with the facility (inspectors, permit engineers, etc.) or with whom facility representatives have had contact concerning this variance petition, or any related NOV or NTC.

Kirk Born, Renee Chavez, Dave Born

Based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete:

Date: 6/22/2026

*Signature: _____



Digitally signed by matthewpelz@chevron.com
DN: CN=matthewpelz@chevron.com
Reason: I attest to the accuracy and integrity of this document
Date: 2026.06.22 14:59:14-0700

Title: Operations Team Lead

Print Name: Matthew Pelz

**must be signed by a responsible official if petitioner is a Title V source*

The original petition in this format, and any attachments must be submitted to the District. Any attachments that are extraordinarily difficult to reproduce, such as full color photographs, must be submitted as six copies. Petitions which are incomplete, illegible, submitted in the wrong format, or without the necessary filing fee will be returned. If you need assistance completing this petition and/or developing a compliance schedule, contact the Compliance Department in your region.

Northern Region Office
(209) 557-6440

Central Region Office
(559) 230-5950

Southern Region Office
(661) 392-5540

You may hand deliver, mail, or email this petition to variance@valleyair.org

Attachment A
Conditions Assessment

DEVIATION REPORT ADDENDUM
PERMIT CONDITIONS AND BRIEF DESCRIPTIONS

Affected Permit Type & No.	Condition No.	Condition Text
S-2010-0-4-PTO	6	The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application.
S-2010-23-33-PTO	1	Except as otherwise provided in this permit, this tank shall be maintained in a leak-free condition.
S-2010-23-33-PTO	3	Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition.
S-2010-23-33-PTO	7	The vapor control system shall reduce VOC emissions by at least 99% by weight.
S-2010-23-33-PTO	8	The vapor control system shall route all collected vapors to a sales pipeline.
S-2010-23-33-PTO	10	Vapor control system shall include piping from 4 Wemcos, separators and knockouts, tanks S-2010-23, -24, -25, -26, -201, -203, -204, -205, -206, -207, -208, -209, -210, -211, -212, -213, -214, -217, -220, -221, -226, -227, -228, -229, -245, -250, -264, -313, -314, vapor compressors S-540A and E-540B, inlet scrubber V-301, knockout vessel V-302, sulfur vessels V-310 and V-311, gas/liquid separator V-101, Unicels M-210A and M-210B, vapor compressors K-731A and K-731B and air-cooled heat exchanger with separator vessel V-303.
S-2010-25-9-PTO	1	Fugitive VOC emission rate shall not exceed that listed in S-2010-23.
S-2010-25-9-PTO	2	The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.6.
S-2010-25-9-PTO	4	Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition.
S-2010-201-4-PTO	1	Fugitive VOC emission rate shall not exceed that listed in S-2010-23.
S-2010-201-4-PTO	2	The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.6.
S-2010-201-4-PTO	4	Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition.
S-2010-201-4-PTO	16	Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times.
S-2010-203-4-PTO	1	Fugitive VOC emission rate shall not exceed that listed in S-2010-23.
S-2010-203-4-PTO	2	The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.6.
S-2010-203-4-PTO	4	Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition.
S-2010-204-4-PTO	1	Fugitive VOC emission rate shall not exceed that listed in S-2010-23.
S-2010-204-4-PTO	2	The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.6.
S-2010-204-4-PTO	4	Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition.
S-2010-209-4-PTO	1	Fugitive VOC emission rate shall not exceed that listed in S-2010-23.
S-2010-209-4-PTO	2	The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.6.
S-2010-209-4-PTO	4	Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition.
S-2010-211-4-PTO	1	Fugitive VOC emission rate shall not exceed that listed in S-2010-23.
S-2010-211-4-PTO	2	The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.6.
S-2010-211-4-PTO	4	Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition.
S-2010-212-4-PTO	1	Fugitive VOC emission rate shall not exceed that listed in S-2010-23.

DEVIATION REPORT ADDENDUM
PERMIT CONDITIONS AND BRIEF DESCRIPTIONS

Affected Permit Type & No.	Condition No.	Condition Text
S-2010-212-4-PTO	2	The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.6.
S-2010-212-4-PTO	4	Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition.
S-2010-213-4-PTO	1	Fugitive VOC emission rate shall not exceed that listed in S-2010-23.
S-2010-213-4-PTO	2	The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.6.
S-2010-213-4-PTO	4	Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition.
S-2010-214-4-PTO	1	Fugitive VOC emission rate shall not exceed that listed in S-2010-23.
S-2010-214-4-PTO	2	The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.6.
S-2010-214-4-PTO	4	Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition.
S-2010-217-4-PTO	2	Fugitive VOC emission rate shall not exceed that listed in S-2010-23.
S-2010-217-4-PTO	3	The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.6.
S-2010-217-4-PTO	5	Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition.
S-2010-220-9-PTO	1	Tank vapors space shall vent only to the vapor control system identified on S-2010-23.
S-2010-220-9-PTO	2	Vapor control system efficiency shall be maintained at no less than 99%.
S-2010-220-9-PTO	4	Tank vapor space appurtenances shall be maintained leak-free as defined in Rule 4623.
S-2010-220-9-PTO	5	Fugitive VOC emission rate shall not exceed that listed in S-2010-23.
S-2010-226-5-PTO	1	The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.6.
S-2010-226-5-PTO	3	All piping, valves and fittings shall be constructed and maintained in a leak-free condition.
S-2010-226-5-PTO	15	Fugitive VOC emission rate shall not exceed that listed in S-2010-23.
S-2010-228-5-PTO	1	The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.6.
S-2010-228-5-PTO	3	All piping, valves and fittings shall be constructed and maintained in a leak-free condition.
S-2010-228-5-PTO	15	Fugitive VOC emission rate shall not exceed that listed in S-2010-23.
S-2010-229-5-PTO	1	The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.6.
S-2010-229-5-PTO	2	All 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.
S-2010-319-1-PTO	1	Vessel shall vent only to vapor control system S-2010-23.
S-2010-319-1-PTO	2	Except as otherwise provided in this permit, this tank shall be maintained in a leak-free condition.
S-2010-319-1-PTO	3	Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition.

Attachment B
Emissions Assessment

Chevron USA

Cahn 3 OCP Tank Excess Emission Calculations

OOS															
SJVIAPCD PTO Number	S-2010-23	S-2010-24	S-2010-25	S-2010-26	S-2010-201	S-2010-203	S-2010-204	S-2010-205	S-2010-206	S-2010-207	S-2010-208	S-2010-209	S-2010-210	S-2010-211	
Calculated VOC EF (lb/day)	9.6	0.0	2.3	0.0	0.5	0.5	0.6	0.3	1.4	1.4	0.0	1.4	0.3	1.3	
Permitted VOC EF (lb/day)*	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Excess Emissions (lb/day)	9.5	0.0	2.3	0.0	0.4	0.4	0.6	0.3	1.4	1.4	0.0	1.4	0.3	1.3	
OOS															
SJVIAPCD PTO Number	S-2010-212	S-2010-213	S-2010-214	S-2010-217	S-2010-220	S-2010-221	S-2010-226	S-2010-227	S-2010-228	S-2010-245	S-2010-250	S-2010-264	S-2010-313	S-2010-314	N/A
Calculated VOC EF (lb/day)	9.5	3.1	0.7	9.6	1.0	0.0	1.0	0.0	0.3	0.0	0.0	0.0	1.0	0.0	
Permitted VOC EF (lb/day)*	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Excess Emissions (lb/day)	9.4	3.1	0.7	9.5	0.9	0.0	0.9	0.0	0.3	0.0	0.0	0.0	1.0	0.0	
*Permitted emissions with VRS off-line are assumed to be 1% of calculated emissions (per VRU permit condition).															
Summary	Total														
Calculated VOC EF (lb/day)	45.9														
Permitted VOC EF (lb/day)*	0.5														
Excess Emissions (lb/day) Cahn 3 OCP	45.4														

Lbs VOC Excess Emissions for Variance Period (worst case):

Duration of Variance (days): 14

TOTAL	
Calculated Lbs VOC (14 day)	642.0
Permitted Lbs VOC (14 day)	6.4
Excess Lbs VOC (14 day)	635.5

Lbs VOC Excess Emissions for Variance Period (expected):

Duration of Variance (days): 14

TOTAL	
Calculated Lbs VOC (14 days)	642.0
Permitted Lbs VOC (14 days)	6.4
Excess Lbs VOC (14 days)	635.5

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-23, -24
facility tank I.D.	Wash Tank
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
is this a constant-level tank? {yes, no}	yes
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	yes
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	33.5
capacity of tank (bbl)	5,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	32
average liquid height (feet)	25
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		-
maximum annual fluid throughput (bbl)		0
maximum daily oil throughput (bbl)(used to calculate flashing loss)		1,440
maximum annual oil throughput (bbl)(used to calculate flashing loss)		525,600
molecular weight, Mw (lb/lb-mol)		100

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.3490
vapor space volume, V _v (cubic feet)		6477.47
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0025
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	513	1.41
Working Loss	N/A	N/A
Flashing Loss	2,987	8.18
Total Uncontrolled Tank VOC Emissions	3,500	9.6

Summary Table	
Permit Number	S-2010-23, -24
Facility Tank I.D.	Wash Tank
Tank capacity (bbl)	5,000
Tank diameter (ft)	33.5
Tank shell height (ft)	32
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	1,440
Maximum Annual Oil Throughput (bbl/year)	525,600
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	9.6
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	3,500

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-25
facility tank I.D.	Shipping Tank
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
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)	42.5
capacity of tank (bbl)	8,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	32
average liquid height (feet)	25
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		-
maximum annual fluid throughput (bbl)		0
-----This row only used if flashing losses occur in this tank-----		
-----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)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.4427
vapor space volume, V _v (cubic feet)		10558.42
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0025
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	837	2.29
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	837	2.3

Summary Table	
Permit Number	S-2010-25
Facility Tank I.D.	Shipping Tank
Tank capacity (bbl)	8,000
Tank diameter (ft)	42.5
Tank shell height (ft)	32
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	2.3
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	837

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-26
facility tank I.D.	Ship Reject
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
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)	42.5
capacity of tank (bbl)	8,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	32
average liquid height (feet)	25
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		-
maximum annual fluid throughput (bbl)		0
-----This row only used if flashing losses occur in this tank-----		
-----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)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.4427
vapor space volume, V _v (cubic feet)		10558.42
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0025
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	837	2.29
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	837	2.3

Summary Table	
Permit Number	S-2010-26
Facility Tank I.D.	Ship Reject
Tank capacity (bbl)	8,000
Tank diameter (ft)	42.5
Tank shell height (ft)	32
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	2.3
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	837

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-201
facility tank I.D.	Wastewater
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
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)	25
capacity of tank (bbl)	2,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	24
average liquid height (feet)	20
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		-
maximum annual fluid throughput (bbl)		0
-----This row only used if flashing losses occur in this tank-----		
-----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, Tax (°F)		76.8
daily minimum ambient temperature, Tan (°F)		54
daily total solar insulation factor, I (Btu/ft^2-day)		1666
atmospheric pressure, Pa (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (Tlx), Pvx (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (Tln), Pvn (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (Tla), Pva (psia)	83.5	0.5741
roof outage, Hro (feet)		0.2604
vapor space volume, Vv (cubic feet)		2091.33
paint factor, alpha		0.54
vapor density, Wv (lb/cubic foot)		0.0025
daily vapor temperature range, delta Tv (degrees Rankine)		41.61
vapor space expansion factor, Ke		0.0856

Results	lb/year	lb/day
Standing Storage Loss	166	0.45
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	166	0.5

Summary Table	
Permit Number	S-2010-201
Facility Tank I.D.	Wastewater
Tank capacity (bbl)	2,000
Tank diameter (ft)	25
Tank shell height (ft)	24
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	0.5
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	166

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-203
facility tank I.D.	Wastewater
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
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)	25
capacity of tank (bbl)	2,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	24
average liquid height (feet)	20
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		-
maximum annual fluid throughput (bbl)		0
-----This row only used if flashing losses occur in this tank-----		
-----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)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.2604
vapor space volume, V _v (cubic feet)		2091.33
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0025
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	166	0.45
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	166	0.5

Summary Table	
Permit Number	S-2010-203
Facility Tank I.D.	Wastewater
Tank capacity (bbl)	2,000
Tank diameter (ft)	25
Tank shell height (ft)	24
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	0.5
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	166

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-204
facility tank I.D.	Water Drain
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
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)	21.5
capacity of tank (bbl)	1,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	16
average liquid height (feet)	8
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		-
maximum annual fluid throughput (bbl)		0
-----This row only used if flashing losses occur in this tank-----		
-----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)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.2240
vapor space volume, V _v (cubic feet)		2985.71
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0025
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	237	0.65
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	237	0.6

Summary Table	
Permit Number	S-2010-204
Facility Tank I.D.	Water Drain
Tank capacity (bbl)	1,000
Tank diameter (ft)	21.5
Tank shell height (ft)	16
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	0.6
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	237

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-205
facility tank I.D.	Produced Water
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
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)	21.5
capacity of tank (bbl)	1,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	16
average liquid height (feet)	12
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		-
maximum annual fluid throughput (bbl)		0
-----This row only used if flashing losses occur in this tank-----		
-----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)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.2240
vapor space volume, V _v (cubic feet)		1533.51
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0025
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	122	0.33
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	122	0.3

Summary Table	
Permit Number	S-2010-205
Facility Tank I.D.	Produced Water
Tank capacity (bbl)	1,000
Tank diameter (ft)	21.5
Tank shell height (ft)	16
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	0.3
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	122

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-206
facility tank I.D.	Produced Water
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
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)	33.5
capacity of tank (bbl)	5,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	32
average liquid height (feet)	25
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

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

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.3490
vapor space volume, V _v (cubic feet)		6477.47
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0000
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	0	0.00
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	0	0.0

Summary Table	
Permit Number	S-2010-206
Facility Tank I.D.	Produced Water
Tank capacity (bbl)	5,000
Tank diameter (ft)	33.5
Tank shell height (ft)	32
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	0.0
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	0

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-207
facility tank I.D.	Produced Water
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
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)	33.5
capacity of tank (bbl)	5,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	32
average liquid height (feet)	25
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		-
maximum annual fluid throughput (bbl)		0
-----This row only used if flashing losses occur in this tank-----		
-----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)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.3490
vapor space volume, V _v (cubic feet)		6477.47
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0025
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	513	1.41
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	513	1.4

Summary Table	
Permit Number	S-2010-207
Facility Tank I.D.	Produced Water
Tank capacity (bbl)	5,000
Tank diameter (ft)	33.5
Tank shell height (ft)	32
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	1.4
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	513

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-209
facility tank I.D.	Produced Water
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
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)	33.5
capacity of tank (bbl)	5,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	32
average liquid height (feet)	25
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		-
maximum annual fluid throughput (bbl)		0
-----This row only used if flashing losses occur in this tank-----		
-----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)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.3490
vapor space volume, V _v (cubic feet)		6477.47
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0025
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	513	1.41
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	513	1.4

Summary Table	
Permit Number	S-2010-209
Facility Tank I.D.	Produced Water
Tank capacity (bbl)	5,000
Tank diameter (ft)	33.5
Tank shell height (ft)	32
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	1.4
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	513

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-210
facility tank I.D.	Produced Water
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
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)	21.5
capacity of tank (bbl)	1,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	16
average liquid height (feet)	12
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		-
maximum annual fluid throughput (bbl)		0
-----This row only used if flashing losses occur in this tank-----		
-----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)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.2240
vapor space volume, V _v (cubic feet)		1533.51
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0025
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	122	0.33
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	122	0.3

Summary Table	
Permit Number	S-2010-210
Facility Tank I.D.	Produced Water
Tank capacity (bbl)	1,000
Tank diameter (ft)	21.5
Tank shell height (ft)	16
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	0.3
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	122

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-211
facility tank I.D.	Waste Water
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
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)	38.2
capacity of tank (bbl)	6,500
conical or dome roof? {c, d}	c
shell height of tank (feet)	32
average liquid height (feet)	27
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		-
maximum annual fluid throughput (bbl)		0
-----This row only used if flashing losses occur in this tank-----		
-----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)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.3979
vapor space volume, V _v (cubic feet)		6186.47
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0025
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	490	1.34
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	490	1.3

Summary Table	
Permit Number	S-2010-211
Facility Tank I.D.	Waste Water
Tank capacity (bbl)	6,500
Tank diameter (ft)	38.2
Tank shell height (ft)	32
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	1.3
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	490

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-212
facility tank I.D.	Produced Water
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
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)	72
capacity of tank (bbl)	29,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	40
average liquid height (feet)	30
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		-
maximum annual fluid throughput (bbl)		0
-----This row only used if flashing losses occur in this tank-----		
-----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)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.7500
vapor space volume, V _v (cubic feet)		43768.67
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0025
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	3,469	9.50
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	3,469	9.5

Summary Table	
Permit Number	S-2010-212
Facility Tank I.D.	Produced Water
Tank capacity (bbl)	29,000
Tank diameter (ft)	72
Tank shell height (ft)	40
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	9.5
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	3,469

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-213
facility tank I.D.	Produced Water
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
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)	46.33
capacity of tank (bbl)	9,600
conical or dome roof? {c, d}	c
shell height of tank (feet)	32
average liquid height (feet)	24
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		-
maximum annual fluid throughput (bbl)		0
-----This row only used if flashing losses occur in this tank-----		
-----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)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.4826
vapor space volume, V _v (cubic feet)		14300.25
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0025
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	1,133	3.11
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	1,133	3.1

Summary Table	
Permit Number	S-2010-213
Facility Tank I.D.	Produced Water
Tank capacity (bbl)	9,600
Tank diameter (ft)	46.33
Tank shell height (ft)	32
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	3.1
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	1,133

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-214
facility tank I.D.	Wash Tank
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
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)	22.5
capacity of tank (bbl)	1,700
conical or dome roof? {c, d}	c
shell height of tank (feet)	24
average liquid height (feet)	16
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

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

Calculated Values	A	B
daily maximum ambient temperature, Tax (°F)		76.8
daily minimum ambient temperature, Tan (°F)		54
daily total solar insulation factor, I (Btu/ft^2-day)		1666
atmospheric pressure, Pa (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (Tlx), Pvx (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (Tln), Pvn (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (Tla), Pva (psia)	83.5	0.5741
roof outage, Hro (feet)		0.2344
vapor space volume, Vv (cubic feet)		3274.05
paint factor, alpha		0.54
vapor density, Wv (lb/cubic foot)		0.0025
daily vapor temperature range, delta Tv (degrees Rankine)		41.61
vapor space expansion factor, Ke		0.0856

Results	lb/year	lb/day
Standing Storage Loss	259	0.71
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	259	0.7

Summary Table	
Permit Number	S-2010-214
Facility Tank I.D.	Wash Tank
Tank capacity (bbl)	1,700
Tank diameter (ft)	22.5
Tank shell height (ft)	24
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	0.7
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	259

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-217
facility tank I.D.	Wash Tank
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
is this a constant-level tank? {yes, no}	yes
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	yes
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	33.5
capacity of tank (bbl)	5,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	32
average liquid height (feet)	25
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		-
maximum annual fluid throughput (bbl)		0
maximum daily oil throughput (bbl)(used to calculate flashing loss)		1,440
maximum annual oil throughput (bbl)(used to calculate flashing loss)		525,600
molecular weight, Mw (lb/lb-mol)		100

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.3490
vapor space volume, V _v (cubic feet)		6477.47
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0025
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	513	1.41
Working Loss	N/A	N/A
Flashing Loss	2,987	8.18
Total Uncontrolled Tank VOC Emissions	3,500	9.6

Summary Table	
Permit Number	S-2010-217
Facility Tank I.D.	Wash Tank
Tank capacity (bbl)	5,000
Tank diameter (ft)	33.5
Tank shell height (ft)	32
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	1,440
Maximum Annual Oil Throughput (bbl/year)	525,600
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	9.6
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	3,500

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-220
facility tank I.D.	Produced Water
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
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)	26
capacity of tank (bbl)	2,300
conical or dome roof? {c, d}	c
shell height of tank (feet)	24
average liquid height (feet)	16
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		-
maximum annual fluid throughput (bbl)		0
-----This row only used if flashing losses occur in this tank-----		
-----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)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.2708
vapor space volume, V _v (cubic feet)		4391.23
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0025
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	348	0.95
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	348	1.0

Summary Table	
Permit Number	S-2010-220
Facility Tank I.D.	Produced Water
Tank capacity (bbl)	2,300
Tank diameter (ft)	26
Tank shell height (ft)	24
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	1.0
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	348

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-226
facility tank I.D.	Waste Water
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
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)	26
capacity of tank (bbl)	2,300
conical or dome roof? {c, d}	c
shell height of tank (feet)	24
average liquid height (feet)	16
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		-
maximum annual fluid throughput (bbl)		0
-----This row only used if flashing losses occur in this tank-----		
-----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)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.2708
vapor space volume, V _v (cubic feet)		4391.23
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0025
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	348	0.95
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	348	1.0

Summary Table	
Permit Number	S-2010-226
Facility Tank I.D.	Waste Water
Tank capacity (bbl)	2,300
Tank diameter (ft)	26
Tank shell height (ft)	24
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	1.0
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	348

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-228
facility tank I.D.	Waste Water
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
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)	21.5
capacity of tank (bbl)	1,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	16
average liquid height (feet)	12
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		-
maximum annual fluid throughput (bbl)		0
-----This row only used if flashing losses occur in this tank-----		
-----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)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.2240
vapor space volume, V _v (cubic feet)		1533.51
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0025
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	122	0.33
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	122	0.3

Summary Table	
Permit Number	S-2010-228
Facility Tank I.D.	Waste Water
Tank capacity (bbl)	1,000
Tank diameter (ft)	21.5
Tank shell height (ft)	16
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	0.3
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	122

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-245
facility tank I.D.	Wash Tank
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
is this a constant-level tank? {yes, no}	yes
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	yes
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	42.5
capacity of tank (bbl)	8,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	32
average liquid height (feet)	25
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		-
maximum annual fluid throughput (bbl)		0
maximum daily oil throughput (bbl)(used to calculate flashing loss)		0
maximum annual oil throughput (bbl)(used to calculate flashing loss)		-
molecular weight, Mw (lb/lb-mol)		0

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.4427
vapor space volume, V _v (cubic feet)		10558.42
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0000
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	0	0.00
Working Loss	N/A	N/A
Flashing Loss	0	0.00
Total Uncontrolled Tank VOC Emissions	0	0.0

Summary Table	
Permit Number	S-2010-245
Facility Tank I.D.	Wash Tank
Tank capacity (bbl)	8,000
Tank diameter (ft)	42.5
Tank shell height (ft)	32
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	0
Maximum Annual Oil Throughput (bbl/year)	0
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	0.0
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	0

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-250
facility tank I.D.	Wash Tank
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
is this a constant-level tank? {yes, no}	yes
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	yes
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	42.5
capacity of tank (bbl)	8,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	32
average liquid height (feet)	25
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		-
maximum annual fluid throughput (bbl)		0
maximum daily oil throughput (bbl)(used to calculate flashing loss)		0
maximum annual oil throughput (bbl)(used to calculate flashing loss)		-
molecular weight, Mw (lb/lb-mol)		0

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.4427
vapor space volume, V _v (cubic feet)		10558.42
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0000
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	0	0.00
Working Loss	N/A	N/A
Flashing Loss	0	0.00
Total Uncontrolled Tank VOC Emissions	0	0.0

Summary Table	
Permit Number	S-2010-250
Facility Tank I.D.	Wash Tank
Tank capacity (bbl)	8,000
Tank diameter (ft)	42.5
Tank shell height (ft)	32
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	0
Maximum Annual Oil Throughput (bbl/year)	0
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	0.0
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	0

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-264
facility tank I.D.	Wash Tank
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
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)	56.75
capacity of tank (bbl)	18,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	40
average liquid height (feet)	30
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

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

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.5911
vapor space volume, V _v (cubic feet)		26789.50
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0000
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	0	0.00
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	0	0.0

Summary Table	
Permit Number	S-2010-264
Facility Tank I.D.	Wash Tank
Tank capacity (bbl)	18,000
Tank diameter (ft)	56.75
Tank shell height (ft)	40
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	0.0
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	0

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-2010-319
facility tank I.D.	M-213 Wemco
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.148
liquid bulk storage temperature, Tb (°F)	85
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)	31
capacity of tank (bbl)	950
conical or dome roof? {c, d}	c
shell height of tank (feet)	12
average liquid height (feet)	6
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}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		-
maximum annual fluid throughput (bbl)		0
-----This row only used if flashing losses occur in this tank-----		
-----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)		76.8
daily minimum ambient temperature, T _{an} (°F)		54
daily total solar insulation factor, I (Btu/ft ² -day)		1666
atmospheric pressure, P _a (psia)		14.43
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	88.5	0.6702
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	78.5	0.4853
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	83.5	0.5741
roof outage, H _{ro} (feet)		0.3229
vapor space volume, V _v (cubic feet)		4772.33
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0025
daily vapor temperature range, delta T _v (degrees Rankine)		41.61
vapor space expansion factor, K _e		0.0856

Results	lb/year	lb/day
Standing Storage Loss	378	1.04
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	378	1.0

Summary Table

Permit Number	S-2010-319
Facility Tank I.D.	M-213 Wemco
Tank capacity (bbl)	950
Tank diameter (ft)	31
Tank shell height (ft)	12
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	-
Maximum Annual Fluid Throughput (bbl/year)	0
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	1.0
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	378