



JUL 14 2014

Mr. Kawika Tupou  
Shell Pipeline Company  
20945 S Wilmington Ave.  
Carson, CA 90810

**Re: Notice of Minor Title V Permit Modification  
District Facility # S-77  
Project # 1143043**

Dear Mr. Tupou:

Enclosed is the District's analysis of your application for minor Title V permit modification for the facility identified above. You proposed a Title V minor permit modification to incorporate recently issued Authorities to Construct (ATCs) S-77-9-8 and '14-8 into the Title V operating permit. The ATCs are to increase the vapor pressure limit of crude oil storage tanks.

You also proposed a Title V minor permit modification to modify Permits to Operate S-77-11 and '14 of the facility's current Title V operating permit. The minor modification is to correct the time limit allowed for measuring tank seal gaps after a tank roof is re-floated.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V permit, recently issued ATCs S-77-9-8 and '14-8, emission increases, application, and previous Title V permit. This project will be subject to a 45-day EPA commenting period prior to the District taking final action.

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

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

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**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

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Mr. Tupou  
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Thank you for your cooperation in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read 'Arnaud Marjollet', with a small mark to the left.

Arnaud Marjollet  
Director of Permit Services

Enclosures

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

# TITLE V APPLICATION REVIEW

Minor Modification  
Project #: S-1143043

Engineer: David Torii  
Reviewing Engineer: Allan Phillips *AP SUPP AOE*

Facility Number: S-77  
Facility Name: Shell Pipeline Company  
Mailing Address: 20945 S Wilmington Ave.  
Carson, CA 90810  
Contact Name: Kawika Tupou  
Phone: 310-816-2250

JUL 10 2014

Responsible Official: Michael W. Bringham  
Title: Operations Manager

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## I. PROPOSAL

Shell Pipeline Company (Shell) is proposing a Title V minor permit modification to incorporate the recently issued ATCs S-77-9-8 and S-77-14-8 into the Title V operating permit. The ATCs are to increase the vapor pressure limit of crude oil storage tanks.

Shell also requests a Minor Modification of Permits to Operate S-77-11 and '14 to correct the time limit allowed for measuring tank seal gaps after a tank roof is re-floated. The permits currently allow 24 hours which was the limit of the previous version of Rule 4623. The current version of Rule 4623 allows 48 hours; therefore, the permits will be revised to allow 48 hours.

## II. FACILITY LOCATION

The tanks are located within the SW/4 of Section 34, Township 27S, Range 20E at the Caneras Pump Station.

## III. EQUIPMENT DESCRIPTION

Proposed Title V Operating Permit:

S-77-9-8: 55,000 BBL RIVETED INTERNAL FLOATING ROOF STORAGE TANK  
#55GL5 WITH METALLIC SHOE PRIMARY SEAL AND SECONDARY  
WIPER SEAL

S-77-11-6: 150,000 BBL WELDED EXTERNAL FLOATING ROOF CRUDE OIL  
STORAGE TANK WITH METALLIC SHOE PRIMARY SEAL AND  
SECONDARY WIPER SEAL

S-77-14-8: 126,000 BBL WELDED EXTERNAL FLOATING ROOF TANK #126GL6 WITH METALLIC SHOE PRIMARY SEAL AND SECONDARY WIPER SEAL

**IV. SCOPE OF EPA AND PUBLIC REVIEW**

This change to a Title V permit is considered to be a minor modification and, as such, requires no public review.

**V. APPLICABLE REQUIREMENTS**

District Rule 2520, Federally Mandated Operating Permits (Adopted June 21, 2001)

**VI. DESCRIPTION OF PROPOSED MODIFICATIONS**

The Changes to the original Permits to Operate are as follows

<b>S-77-9</b>		
<b>Condition # on Proposed Permits Minor Modification PTOs</b>	<b>Condition is New, Revised, moved or Removed</b>	<b>Reason for Change from Current PTO</b>
1 through 3	Revised	TVP limits were increased

<b>S-77-11</b>		
<b>Condition # on Proposed Permits Minor Modification PTOs</b>	<b>Condition is New, Revised, moved or Removed</b>	<b>Reason for Change from Current PTO</b>
43	Revised	The time limit for measuring tank seal gaps was corrected to 48 hours.

<b>S-77-14</b>		
<b>Condition # on Proposed Permits Minor Modification PTOs</b>	<b>Condition is New, Revised, moved or Removed</b>	<b>Reason for Change from Current PTO</b>
1 through 3	Revised	TVP limits were increased
44	Revised	The time limit for measuring tank seal gaps was corrected to 48 hours.

**VII. COMPLIANCE**

In accordance with Rule 2520, 3.20, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;

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

In accordance with Rule 2520, the application meets the procedural requirements of section 11.4 by including;

1. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
2. The source's suggested draft permit; and
3. Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used.

# ATTACHMENT A

Proposed Modified Title V Operating Permits  
S-77-9-9, '11-6 and '14-9

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-77-9-9

**EXPIRATION DATE:** 08/31/2017

**SECTION:** SW34 **TOWNSHIP:** 27S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 55,000 BBL RIVETED INTERNAL FLOATING ROOF STORAGE TANK #55GL5 WITH METALLIC SHOE PRIMARY SEAL AND SECONDARY WIPER SEAL:

## PERMIT UNIT REQUIREMENTS

1. The true vapor pressure of liquid stored shall not exceed 11.0 psia. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Total throughput of organic liquid with TVP greater than 5.9 psia and less than or equal to 11.0 psia shall not exceed 190,000 bbl/day, nor 85,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Total throughput of organic liquid with TVP less than or equal to 5.9 psia shall not exceed 360,000 bbl/day, nor 180,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Combined total throughput of permits S-77-9, '-11, and '-14 shall not exceed 550,000 bbl/day, nor 265,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC emission rate from permits S-77-9, '-11, and '-14 shall not exceed 227.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC emission rate from permits S-77-9, '-11, and '-14 shall not exceed 41,913 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC emission rate shall not exceed 152.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Tank shall be equipped with operational temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Permittee shall maintain a record of the liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Permittee shall maintain records of maximum daily throughput and monthly average daily throughput. [District Rule 2201] Federally Enforceable Through Title V Permit
11. When storing organic liquids with true vapor pressure less than 0.5 psia, the requirements of Sections 5.3, 5.5 and 6.1 of District Rule 4623 (Amended May 19, 2005) shall not apply to this unit. This exemption applies to all conditions in this permit referencing Rule 4623 Sections 5.3, 5.5 or 6.1 only. [District Rule 4623, 2.0] Federally Enforceable Through Title V Permit
12. Before switching to the storage of organic liquids with true vapor pressure greater than or equal to 0.5 psia, all covers, seals, and lids shall be inspected by the facility operator to ensure compliance with the provisions of this permit. This includes all conditions containing District Rule 4623 reference. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

13. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623] Federally Enforceable Through Title V Permit
14. Gaps between the tank shell and the primary seal shall not exceed 2 1/2 inches. [District Rule 4623] Federally Enforceable Through Title V Permit
15. The cumulative length of all primary seal gaps greater than 1 1/2 inches shall not exceed 10% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
16. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
17. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
18. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623] Federally Enforceable Through Title V Permit
19. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
20. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit
21. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 5 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623] Federally Enforceable Through Title V Permit
22. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
23. The secondary seal shall allow easy insertion of probes up to 2 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
24. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
25. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623] Federally Enforceable Through Title V Permit
26. 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 4623] Federally Enforceable Through Title V Permit

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

27. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. 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 liquid leak or 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 4623, 6.4] Federally Enforceable Through Title V Permit
28. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit
29. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. [District Rule 4623] Federally Enforceable Through Title V Permit
30. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623] Federally Enforceable Through Title V Permit
31. Rim vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623] Federally Enforceable Through Title V Permit
32. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90% of the opening. The fabric cover must be impermeable. [District Rule 4623] Federally Enforceable Through Title V Permit
33. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623] Federally Enforceable Through Title V Permit
34. The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
35. The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623] Federally Enforceable Through Title V Permit
36. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. [District Rule 4623] Federally Enforceable Through Title V Permit
37. Permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

38. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
39. The tank pressure-vacuum (PV) relief valve shall be set to within 10% of the maximum allowable working pressure of the tank. The PV relief valve shall be permanently labeled with the operating pressure settings. The PV 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's set pressure. [District Rule 4623, 5.2] Federally Enforceable Through Title V Permit
40. Permittee shall notify District at least 7 days prior to the date when unobstructed primary and secondary seal/gap testing will occur. [District Rule 1070] Federally Enforceable Through Title V Permit
41. 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] Federally Enforceable Through Title V Permit
42. This unit was constructed prior to 1973 and has not been modified (as defined in 40 CFR 60.14) or reconstructed (as defined in 40 CFR 60.15) since 1973. Therefore, the requirements of 40 CFR 60 are not applicable to this unit. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
43. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months and/or whenever there is a change in the source or type of organic liquid stored in the tank. The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in appendix B of District Rule 4623. Records of TVP testing shall be maintained. [District Rule 2520, 9.3.2; 4623, 6.2.2, 6.3, 6.4] Federally Enforceable Through Title V Permit

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

DRAFT

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-77-11-7

EXPIRATION DATE: 08/31/2017

SECTION: SW34 TOWNSHIP: 27S RANGE: 20E

## EQUIPMENT DESCRIPTION:

150,000 BBL WELDED EXTERNAL FLOATING ROOF CRUDE OIL STORAGE TANK WITH METALLIC SHOE PRIMARY SEAL AND SECONDARY WIPER SEAL

## PERMIT UNIT REQUIREMENTS

1. This tank shall only store liquid with a true vapor pressure (TVP) of 5.9 psia or less under all storage conditions. [District Rule 2201 and 4623, 5.1.1 and 40 CFR 60.110b(a), 112b(a)] Federally Enforceable Through Title V Permit
2. Total throughput of organic liquid with TVP less than or equal to 5.9 psia shall not exceed 360,000 bbl/day nor 180,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Combined total throughput of permits S-77-9, '-11, and '-14 shall not exceed 550,000 bbl/day nor 265,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
4. VOC emission rate from permits S-77-9, '-11, and '-14 shall not exceed 227.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC emission rate from permits S-77-9, '-11, and '-14 shall not exceed 41,913 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC emission rate shall not exceed 119.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall maintain a record of the liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.116b(c) and District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain records of maximum daily throughput and monthly average daily throughput. [District Rule 2201] Federally Enforceable Through Title V Permit
9. When storing organic liquids with true vapor pressure less than 0.5 psia, the requirements of Sections 5.3, 5.5 and 6.1 of District Rule 4623 (Amended May 19, 2005) shall not apply to this unit. This exemption applies to all conditions in this permit referencing Rule 4623 Sections 5.3, 5.5 or 6.1 only. [District Rule 4623, 2.0] Federally Enforceable Through Title V Permit
10. When storing organic liquids with true vapor pressure less than 0.75 psia, the requirements of 40 CFR 60 Subpart Kb shall not apply to this unit. This exemption applies to all conditions in this permit referencing 40 CFR 60 Subpart Kb only. [40 CFR 60.112b(a)] Federally Enforceable Through Title V Permit
11. Before switching to the storage of organic liquids with true vapor pressure greater than or equal to 0.5 psia, all covers, seals, and lids shall be inspected by the facility operator to ensure compliance with the provisions of this permit. This includes all conditions containing District Rule 4623 reference. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. Before switching to the storage of organic liquids with true vapor pressure greater than or equal to 0.75 psia, all covers, seals, and lids shall be inspected by the facility operator to ensure compliance with the provisions of this permit. This includes all conditions containing District Rule 4623 or 40 CFR 60 Subpart Kb reference. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
13. This tank shall be equipped with a closure device between the tank shell and roof edge consisting of two seals mounted one above the other; the one below shall be referred to as the primary seal, and the one above shall be referred as the secondary seal. [District NSR Rule; District Rule 4623, 5.3.1.2 and 40 CFR 60.112b(a)(2)(i)] Federally Enforceable Through Title V Permit
14. The external floating roof shall float on the surface of the stored liquid at all times (i.e., off the roof leg supports) except during the initial fill until the roof is lifted off the leg supports and when the tank is completely emptied and subsequently refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five calendar days prior to performing the work. The tank must be in compliance with this rule before it may land on its legs. [District Rule 4623, 5.3.1.3 and 40 CFR 60.112b(a)(2)(iii)] Federally Enforceable Through Title V Permit
15. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623, 5.3.2.1.1 and 40 CFR 60.113b(b)(4)(i)] Federally Enforceable Through Title V Permit
16. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1 and 40 CFR 60.113b(b)(4)(i)] Federally Enforceable Through Title V Permit
17. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1 and 40 CFR 60.113b(b)(4)(i)] Federally Enforceable Through Title V Permit
18. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623, 5.3.2.1.1 and 40 CFR 60.113b(b)(4)(i)] Federally Enforceable Through Title V Permit
19. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623, 5.3.2.1.2, 6.1 and 40 CFR 60.113b(b)(4)(ii)(B)] Federally Enforceable Through Title V Permit
20. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623, 5.3.2.1.2 and 40 CFR 60.113b(b)(4)(ii)(B)] Federally Enforceable Through Title V Permit
21. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 24 inches above the stored liquid surface. [District Rule 4623, 5.3.2.1.3 and 40 CFR 60.113b(b)(4)(i)(A)] Federally Enforceable Through Title V Permit
22. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623, 5.3.2.1.4] Federally Enforceable Through Title V Permit
23. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. Except for gaps meeting permit requirements, the primary seal shall completely cover the annular space between the edge of the floating roof and tank wall. [District Rule 4623, 5.3.2.1.5; 40 CFR 60.112b(a)(2)(i)(A), 40 CFR 60.113b(b)(4)(i)(B) and 60.113b(b)(4)(ii)(C)] Federally Enforceable Through Title V Permit
24. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623, 5.3.2.1.6] Federally Enforceable Through Title V Permit
25. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. Except for gaps meeting permit requirements, the secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion. [District Rule 4623, 5.3.2.1.7; 40 CFR 60.112b(a)(2)(i)(B) and 40 CFR 60.113b(b)(4)(ii)(A)] Federally Enforceable Through Title V Permit

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

26. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623, 5.2 & 5.5.1] Federally Enforceable Through Title V Permit
27. 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 4623, 3.10 and 6.4.8] Federally Enforceable Through Title V Permit
28. Except for automatic bleeder vents, rim vents, and pressure relief vents, each opening in a non-contact external floating roof shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.2.1, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
29. Except for automatic bleeder vents and rim vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid that shall be maintained in a closed position at all times (i.e., no visible gap) except when in actual use. [District Rule 4623, 5.5.2.2.2, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
30. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623, 5.5.2.2.3, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
31. Rim vents shall be equipped with a gasket and shall be set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. [District Rule 4623, 5.5.2.2.4, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
32. Each emergency roof drain shall be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening. The fabric cover must be impermeable if the liquid is drained into the contents of the tanks. [District Rule 4623, 5.5.2.2.5, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
33. External floating roof legs shall be equipped with vapor socks or vapor barriers in order to maintain a gas-tight condition so as to prevent VOC emissions from escaping through the roof leg opening. [District Rule 4623, 5.5.2.2.6] Federally Enforceable Through Title V Permit
34. All wells and similar fixed projections through the floating roof shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.3.1] Federally Enforceable Through Title V Permit
35. The solid guidepole well shall be equipped with a pole wiper and a gasketed cover, seal or lid which shall be in a closed position at all times (i.e., no visible gap) except when the well is in use. [District Rule 4623, 5.5.2.3.2] Federally Enforceable Through Title V Permit
36. The gap between the pole wiper and the solid guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/2 inch. [District Rule 4623, 5.5.2.3.3] Federally Enforceable Through Title V Permit
37. The slotted guidepole well on a external floating roof shall be equipped with the following: a sliding cover, a well gasket, a pole sleeve, a pole wiper, and an internal float and float wiper designed to minimize the gap between the float and the well, and provided the gap shall not exceed 1/8 inch; or shall be equipped with a well gasket, a zero gap pole wiper seal and a pole sleeve that projects below the liquid surface. [District Rule 4623, 5.5.2.4.2] Federally Enforceable Through Title V Permit
38. The gap between the pole wiper and the slotted guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/8 inch. [District Rule 4623, 5.5.2.4.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

39. The permittee of external floating roof tanks shall make the primary seal envelope available for unobstructed inspection by the APCO on an annual basis at locations selected along its circumference at random by the APCO. In the case of riveted tanks with toroid-type seals, a minimum of eight locations shall be made available; in all other cases, a minimum of four locations shall be made available. If the APCO suspects a violation may exist the APCO may require such further unobstructed inspection of the primary seal as may be necessary to determine the seal condition for its entire circumference. [District Rule 4623, 6.1] Federally Enforceable Through Title V Permit
40. Measurements of gaps between the tank wall and the primary and secondary seal shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with a volatile organic liquid. [40 CFR 60.113b(b)(1)(i)] Federally Enforceable Through Title V Permit
41. If any source ceases to store volatile organic liquid for a period of 1 year or more, subsequent introduction of volatile organic liquid into the vessel shall be considered an initial fill. [40 CFR 60.113b(b)(1)(iii)] Federally Enforceable Through Title V Permit
42. The permittee shall inspect all floating roof tanks at least once every 12 months to determine compliance with the requirements of this rule. The actual gap measurements of the floating roof primary and secondary seals shall be recorded. Permittee shall measure seal gaps, at one or more floating roof levels when the roof is floating off the roof leg supports, around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location. The inspection results shall be submitted to the APCO as specified in Section 6.3.5. [County Rule 107 (40 CFR 60.113b(b)(1)(i) & (ii); and 40 CFR 60.113b(b)(2)(i) & (ii)] Federally Enforceable Through Title V Permit
43. The permittee shall inspect the primary and secondary seals for compliance with the requirements of this rule every time a tank is emptied or degassed. Actual gap measurements shall be performed when the liquid level is static but not more than 48 hours after the tank roof is re-floated. If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary before filling or refilling the storage vessel. The owner or operator shall notify the APCO in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the APCO the opportunity to inspect the storage vessel prior to refilling. [District Rule 4623, 6.1.3 and 40 CFR 60.113b(b)(6)] Federally Enforceable Through Title V Permit
44. Permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of Rule 4623. [District Rule 4623, 6.3.5 and 40 CFR 60.115b(b)] Federally Enforceable Through Title V Permit
45. Permittee shall maintain the records of the external floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623, 6.3.7] Federally Enforceable Through Title V Permit
46. 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, 6.3 and 40 CFR 60.116b(a)] Federally Enforceable Through Title V Permit
47. Permittee shall notify District at least 30 days prior to the date when unobstructed primary and secondary seal/gap measurements will occur to afford the APCO the opportunity to have an observer present. [40 CFR 60.113b(b)(5)] Federally Enforceable Through Title V Permit

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

48. Permittee shall make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 CFR 60.113b(b)(4)(i) and (ii). If necessary repairs cannot be made within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the APCO. Such an extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.113b(b)(4)] Federally Enforceable Through Title V Permit
49. The owner or operator of each storage vessel shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Such records shall be retained for the life of the source. [40 CFR 60.116b(b)] Federally Enforceable Through Title V Permit
50. Permittee shall maintain records of daily throughput. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
51. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months and/or whenever there is a change in the source or type of organic liquid stored in the tank. The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in appendix B of District Rule 4623. Records of TVP testing shall be maintained. [District Rule 2520, 9.3.2, 4623, 6.4.3 and 6.2] Federally Enforceable Through Title V Permit
52. Compliance with permit conditions in the Title V permit shall be deemed compliance with District Rule 4623 (amended may 19, 2005) and 40CFR60 Subpart Kb. A permit shield is granted form this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

DRAFT

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-77-14-9

**EXPIRATION DATE:** 08/31/2017

**SECTION:** SW34 **TOWNSHIP:** 27S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

126,000 BBL WELDED EXTERNAL FLOATING ROOF TANK #126GL6 WITH METALLIC SHOE PRIMARY SEAL AND SECONDARY WIPER SEAL

## PERMIT UNIT REQUIREMENTS

1. The true vapor pressure of liquid stored shall not exceed 11.0 psia. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Total throughput of organic liquid with TVP greater than 5.9 psia and less than or equal to 11.0 psia shall not exceed 190,000 bbl/day, nor 85,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Total throughput of organic liquid with TVP less than or equal to 5.9 psia shall not exceed 360,000 bbl/day, nor 180,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Combined total throughput of permits S-77-9, '-11, and '-14 shall not exceed 550,000 bbl/day, nor 265,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC emission rate from permits S-77-9, '-11, and '-14 shall not exceed 227.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC emission rate from permits S-77-9, '-11, and '-14 shall not exceed 41,913 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC emission rate shall not exceed 129.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain a record of the liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.116b(c) and District Rule 2201] Federally Enforceable Through Title V Permit
9. Permittee shall maintain records of maximum daily throughput and monthly average daily throughput. [District Rule 2201] Federally Enforceable Through Title V Permit
10. When storing organic liquids with true vapor pressure less than 0.5 psia, the requirements of Sections 5.3, 5.5 and 6.1 of District Rule 4623 (Amended May 19, 2005) shall not apply to this unit. This exemption applies to all conditions in this permit referencing Rule 4623 Sections 5.3, 5.5 or 6.1 only. [District Rule 4623, 2.0] Federally Enforceable Through Title V Permit
11. When storing organic liquids with true vapor pressure less than 0.75 psia, the requirements of 40 CFR 60 Subpart Kb shall not apply to this unit. This exemption applies to all conditions in this permit referencing 40 CFR 60 Subpart Kb only. [40 CFR 60.112b(a)] Federally Enforceable Through Title V Permit
12. Before switching to the storage of organic liquids with true vapor pressure greater than or equal to 0.5 psia, all covers, seals, and lids shall be inspected by the facility operator to ensure compliance with the provisions of this permit. This includes all conditions containing District Rule 4623 reference. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. Before switching to the storage of organic liquids with true vapor pressure greater than or equal to 0.75 psia, all covers, seals, and lids shall be inspected by the facility operator to ensure compliance with the provisions of this permit. This includes all conditions containing District Rule 4623 or 40 CFR 60 Subpart Kb reference. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
14. This tank shall be equipped with a closure device between the tank shell and roof edge consisting of two seals mounted one above the other; the one below shall be referred to as the primary seal, and the one above shall be referred as the secondary seal. [District NSR Rule; District Rule 4623, 5.3.1.2 and 40 CFR 60.112b(a)(2)(i)] Federally Enforceable Through Title V Permit
15. The external floating roof shall float on the surface of the stored liquid at all times (i.e., off the roof leg supports) except during the initial fill until the roof is lifted off the leg supports and when the tank is completely emptied and subsequently refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five calendar days prior to performing the work. The tank must be in compliance with this rule before it may land on its legs. [District Rule 4623, 5.3.1.3 and 40 CFR 60.112b(a)(2)(iii)] Federally Enforceable Through Title V Permit
16. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623, 5.3.2.1.1 and 40 CFR 60.113b(b)(4)(i)] Federally Enforceable Through Title V Permit
17. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1 and 40 CFR 60.113b(b)(4)(i)] Federally Enforceable Through Title V Permit
18. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1 and 40 CFR 60.113b(b)(4)(i)] Federally Enforceable Through Title V Permit
19. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623, 5.3.2.1.1 and 40 CFR 60.113b(b)(4)(i)] Federally Enforceable Through Title V Permit
20. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623, 5.3.2.1.2, 6.1 and 40 CFR 60.113b(b)(4)(ii)(B)] Federally Enforceable Through Title V Permit
21. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623, 5.3.2.1.2 and 40 CFR 60.113b(b)(4)(ii)(B)] Federally Enforceable Through Title V Permit
22. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 24 inches above the stored liquid surface. [District Rule 4623, 5.3.2.1.3 and 40 CFR 60.113b(b)(4)(i)(A)] Federally Enforceable Through Title V Permit
23. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623, 5.3.2.1.4] Federally Enforceable Through Title V Permit
24. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. Except for gaps meeting permit requirements, the primary seal shall completely cover the annular space between the edge of the floating roof and tank wall. [District Rule 4623, 5.3.2.1.5; 40 CFR 60.112b(a)(2)(i)(A), 40 CFR 60.113b(b)(4)(i)(B) and 60.113b(b)(4)(ii)(C)] Federally Enforceable Through Title V Permit
25. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623, 5.3.2.1.6] Federally Enforceable Through Title V Permit
26. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. Except for gaps meeting permit requirements, the secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion. [District Rule 4623, 5.3.2.1.7; 40 CFR 60.112b(a)(2)(i)(B) and 40 CFR 60.113b(b)(4)(ii)(A)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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27. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623, 5.2 & 5.5.1] Federally Enforceable Through Title V Permit
28. 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 4623, 3.10 and 6.4.8] Federally Enforceable Through Title V Permit
29. Except for automatic bleeder vents, rim vents, and pressure relief vents, each opening in a non-contact external floating roof shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.2.1, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
30. Except for automatic bleeder vents and rim vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid that shall be maintained in a closed position at all times (i.e., no visible gap) except when in actual use. [District Rule 4623, 5.5.2.2.2, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
31. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623, 5.5.2.2.3, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
32. Rim vents shall be equipped with a gasket and shall be set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. [District Rule 4623, 5.5.2.2.4, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
33. Each emergency roof drain shall be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening. The fabric cover must be impermeable if the liquid is drained into the contents of the tanks. [District Rule 4623, 5.5.2.2.5, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
34. External floating roof legs shall be equipped with vapor socks or vapor barriers in order to maintain a gas-tight condition so as to prevent VOC emissions from escaping through the roof leg opening. [District Rule 4623, 5.5.2.2.6] Federally Enforceable Through Title V Permit
35. All wells and similar fixed projections through the floating roof shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.3.1] Federally Enforceable Through Title V Permit
36. The solid guidepole well shall be equipped with a pole wiper and a gasketed cover, seal or lid which shall be in a closed position at all times (i.e., no visible gap) except when the well is in use. [District Rule 4623, 5.5.2.3.2] Federally Enforceable Through Title V Permit
37. The gap between the pole wiper and the solid guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/2 inch. [District Rule 4623, 5.5.2.3.3] Federally Enforceable Through Title V Permit
38. The slotted guidepole well on a external floating roof shall be equipped with the following: a sliding cover, a well gasket, a pole sleeve, a pole wiper, and an internal float and float wiper designed to minimize the gap between the float and the well, and provided the gap shall not exceed 1/8 inch; or shall be equipped with a well gasket, a zero gap pole wiper seal and a pole sleeve that projects below the liquid surface. [District Rule 4623, 5.5.2.4.2] Federally Enforceable Through Title V Permit
39. The gap between the pole wiper and the slotted guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/8 inch. [District Rule 4623, 5.5.2.4.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

40. The permittee of external floating roof tanks shall make the primary seal envelope available for unobstructed inspection by the APCO on an annual basis at locations selected along its circumference at random by the APCO. In the case of riveted tanks with toroid-type seals, a minimum of eight locations shall be made available; in all other cases, a minimum of four locations shall be made available. If the APCO suspects a violation may exist the APCO may require such further unobstructed inspection of the primary seal as may be necessary to determine the seal condition for its entire circumference. [District Rule 4623, 6.1] Federally Enforceable Through Title V Permit
41. Measurements of gaps between the tank wall and the primary and secondary seal shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with a volatile organic liquid. [40 CFR 60.113b(b)(1)(i)] Federally Enforceable Through Title V Permit
42. If any source ceases to store volatile organic liquid for a period of 1 year or more, subsequent introduction of volatile organic liquid into the vessel shall be considered an initial fill. [40 CFR 60.113b(b)(1)(iii)] Federally Enforceable Through Title V Permit
43. The permittee shall inspect all floating roof tanks at least once every 12 months to determine compliance with the requirements of this rule. The actual gap measurements of the floating roof primary and secondary seals shall be recorded. Permittee shall measure seal gaps, at one or more floating roof levels when the roof is floating off the roof leg supports, around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location. The inspection results shall be submitted to the APCO as specified in Section 6.3.5. [County Rule 107 (40 CFR 60.113b(b)(1)(i) & (ii); and 40 CFR 60.113b(b)(2)(i) & (ii)] Federally Enforceable Through Title V Permit
44. The permittee shall inspect the primary and secondary seals for compliance with the requirements of this rule every time a tank is emptied or degassed. Actual gap measurements shall be performed when the liquid level is static but not more than 48 hours after the tank roof is re-floated. If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary before filling or refilling the storage vessel. The owner or operator shall notify the APCO in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the APCO the opportunity to inspect the storage vessel prior to refilling. [District Rule 4623, 6.1.3 and 40 CFR 60.113b(b)(6)] Federally Enforceable Through Title V Permit
45. Permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of Rule 4623. [District Rule 4623, 6.3.5 and 40 CFR 60.115b(b)] Federally Enforceable Through Title V Permit
46. Permittee shall maintain the records of the external floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623, 6.3.7] Federally Enforceable Through Title V Permit
47. 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, 6.3 and 40 CFR 60.116b(a)] Federally Enforceable Through Title V Permit
48. Permittee shall notify District at least 30 days prior to the date when unobstructed primary and secondary seal/gap measurements will occur to afford the APCO the opportunity to have an observer present. [40 CFR 60.113b(b)(5)] Federally Enforceable Through Title V Permit

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

49. Permittee shall make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 CFR 60.113b(b)(4)(i) and (ii). If necessary repairs cannot be made within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the APCO. Such an extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.113b(b)(4)] Federally Enforceable Through Title V Permit
50. The owner or operator of each storage vessel shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Such records shall be retained for the life of the source. [40 CFR 60.116b(b)] Federally Enforceable Through Title V Permit
51. Permittee shall maintain records of daily throughput. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
52. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months and/or whenever there is a change in the source or type of organic liquid stored in the tank. The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in appendix B of District Rule 4623. Records of TVP testing shall be maintained. [District Rule 2520, 9.3.2, 4623, 6.4.3 and 6.2] Federally Enforceable Through Title V Permit
53. Compliance with permit conditions in the Title V permit shall be deemed compliance with District Rule 4623 (amended may 19, 2005) and 40CFR60 Subpart Kb. A permit shield is granted form this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

DRAFT

# ATTACHMENT B

Authority to Construct Permits

S-77-9-8 and '14-8



# AUTHORITY TO CONSTRUCT

**PERMIT NO:** S-77-9-8

**ISSUANCE DATE:** 06/10/2014

**LEGAL OWNER OR OPERATOR:** SHELL PIPELINE COMPANY LP  
**MAILING ADDRESS:** 20945 S WILMINGTON AVE  
CARSON, CA 90810-1039

**LOCATION:** CARNERAS PUMP STATION  
LOST HILLS, CA

**SECTION:** SW34 **TOWNSHIP:** 27S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 55,000 BBL RIVETED INTERNAL FLOATING ROOF STORAGE TANK #55GL5 WITH METALLIC SHOE PRIMARY SEAL AND SECONDARY WIPER SEAL: INCREASE MAXIMUM TVP LIMIT TO 11.0 PSIA

## CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. The true vapor pressure of liquid stored shall not exceed 11.0 psia. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Total throughput of organic liquid with TVP greater than 5.9 psia and less than or equal to 11.0 psia shall not exceed 190,000 bbl/day, nor 85,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Total throughput of organic liquid with TVP less than or equal to 5.9 psia shall not exceed 360,000 bbl/day, nor 180,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Combined total throughput of permits S-77-9, '-11, and '-14 shall not exceed 550,000 bbl/day, nor 265,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC emission rate from permits S-77-9, '-11, and '-14 shall not exceed 227.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC emission rate from permits S-77-9, '-11, and '-14 shall not exceed 41,913 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

*COPY*

Arnaud Marjollet, Director of Permit Services

S-77-9-8 - Jul 9 2014 7:57AM - TORID : Joint Inspection NOT Required

8. VOC emission rate shall not exceed 152.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Tank shall be equipped with operational temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Permittee shall maintain a record of the liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall maintain records of maximum daily throughput and monthly average daily throughput. [District Rule 2201] Federally Enforceable Through Title V Permit
12. When storing organic liquids with true vapor pressure less than 0.5 psia, the requirements of Sections 5.3, 5.5 and 6.1 of District Rule 4623 (Amended May 19, 2005) shall not apply to this unit. This exemption applies to all conditions in this permit referencing Rule 4623 Sections 5.3, 5.5 or 6.1 only. [District Rule 4623, 2.0] Federally Enforceable Through Title V Permit
13. Before switching to the storage of organic liquids with true vapor pressure greater than or equal to 0.5 psia, all covers, seals, and lids shall be inspected by the facility operator to ensure compliance with the provisions of this permit. This includes all conditions containing District Rule 4623 reference. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
14. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623] Federally Enforceable Through Title V Permit
15. Gaps between the tank shell and the primary seal shall not exceed 2 1/2 inches. [District Rule 4623] Federally Enforceable Through Title V Permit
16. The cumulative length of all primary seal gaps greater than 1 1/2 inches shall not exceed 10% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
17. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
18. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
19. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623] Federally Enforceable Through Title V Permit
20. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
21. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit
22. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 5 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623] Federally Enforceable Through Title V Permit
23. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
24. The secondary seal shall allow easy insertion of probes up to 2 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
25. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

26. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623] Federally Enforceable Through Title V Permit
27. 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 4623] Federally Enforceable Through Title V Permit
28. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. 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 liquid leak or 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 4623, 6.4] Federally Enforceable Through Title V Permit
29. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit
30. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. [District Rule 4623] Federally Enforceable Through Title V Permit
31. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623] Federally Enforceable Through Title V Permit
32. Rim vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623] Federally Enforceable Through Title V Permit
33. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90% of the opening. The fabric cover must be impermeable. [District Rule 4623] Federally Enforceable Through Title V Permit
34. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623] Federally Enforceable Through Title V Permit
35. The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
36. The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623] Federally Enforceable Through Title V Permit
37. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. [District Rule 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

38. Permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
39. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
40. The tank pressure-vacuum (PV) relief valve shall be set to within 10% of the maximum allowable working pressure of the tank. The PV relief valve shall be permanently labeled with the operating pressure settings. The PV 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's set pressure. [District Rule 4623, 5.2] Federally Enforceable Through Title V Permit
41. Permittee shall notify District at least 7 days prior to the date when unobstructed primary and secondary seal/gap testing will occur. [District Rule 1070] Federally Enforceable Through Title V Permit
42. 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] Federally Enforceable Through Title V Permit
43. This unit was constructed prior to 1973 and has not been modified (as defined in 40 CFR 60.14) or reconstructed (as defined in 40 CFR 60.15) since 1973. Therefore, the requirements of 40 CFR 60 are not applicable to this unit. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
44. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months and/or whenever there is a change in the source or type of organic liquid stored in the tank. The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in appendix B of District Rule 4623. Records of TVP testing shall be maintained. [District Rule 2520, 9.3.2; 4623, 6.2.2, 6.3, 6.4] Federally Enforceable Through Title V Permit



# AUTHORITY TO CONSTRUCT

**PERMIT NO:** S-77-14-8

**ISSUANCE DATE:** 06/10/2014

**LEGAL OWNER OR OPERATOR:** SHELL PIPELINE COMPANY LP  
**MAILING ADDRESS:** 20945 S WILMINGTON AVE  
CARSON, CA 90810-1039

**LOCATION:** CARNERAS PUMP STATION  
LOST HILLS, CA

**SECTION:** SW34 **TOWNSHIP:** 27S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 126,000 BBL WELDED EXTERNAL FLOATING ROOF TANK #126GL6 WITH METALLIC SHOE  
PRIMARY SEAL AND SECONDARY WIPER SEAL: INCREASE MAXIMUM TVP TO 11.0 PSIA

## CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. The true vapor pressure of liquid stored shall not exceed 11.0 psia. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Total throughput of organic liquid with TVP greater than 5.9 psia and less than or equal to 11.0 psia shall not exceed 190,000 bbl/day, nor 85,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Total throughput of organic liquid with TVP less than or equal to 5.9 psia shall not exceed 360,000 bbl/day, nor 180,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Combined total throughput of permits S-77-9, '-11, and '-14 shall not exceed 550,000 bbl/day, nor 265,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC emission rate from permits S-77-9, '-11, and '-14 shall not exceed 227.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC emission rate from permits S-77-9, '-11, and '-14 shall not exceed 41,913 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO

*COPY*

Arnaud Marjollet, Director of Permit Services

S-77-14-8 : Jul 9 2014 7:57AM -- TORID : Joint Inspection NOT Required

8. VOC emission rate shall not exceed 129.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Permittee shall maintain a record of the liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.116b(c) and District Rule 2201] Federally Enforceable Through Title V Permit
10. Permittee shall maintain records of maximum daily throughput and monthly average daily throughput. [District Rule 2201] Federally Enforceable Through Title V Permit
11. When storing organic liquids with true vapor pressure less than 0.5 psia, the requirements of Sections 5.3, 5.5 and 6.1 of District Rule 4623 (Amended May 19, 2005) shall not apply to this unit. This exemption applies to all conditions in this permit referencing Rule 4623 Sections 5.3, 5.5 or 6.1 only. [District Rule 4623, 2.0] Federally Enforceable Through Title V Permit
12. When storing organic liquids with true vapor pressure less than 0.75 psia, the requirements of 40 CFR 60 Subpart Kb shall not apply to this unit. This exemption applies to all conditions in this permit referencing 40 CFR 60 Subpart Kb only. [40 CFR 60.112b(a)] Federally Enforceable Through Title V Permit
13. Before switching to the storage of organic liquids with true vapor pressure greater than or equal to 0.5 psia, all covers, seals, and lids shall be inspected by the facility operator to ensure compliance with the provisions of this permit. This includes all conditions containing District Rule 4623 reference. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
14. Before switching to the storage of organic liquids with true vapor pressure greater than or equal to 0.75 psia, all covers, seals, and lids shall be inspected by the facility operator to ensure compliance with the provisions of this permit. This includes all conditions containing District Rule 4623 or 40 CFR 60 Subpart Kb reference. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
15. This tank shall be equipped with a closure device between the tank shell and roof edge consisting of two seals mounted one above the other; the one below shall be referred to as the primary seal, and the one above shall be referred as the secondary seal. [District NSR Rule; District Rule 4623, 5.3.1.2 and 40 CFR 60.112b(a)(2)(i)] Federally Enforceable Through Title V Permit
16. The external floating roof shall float on the surface of the stored liquid at all times (i.e., off the roof leg supports) except during the initial fill until the roof is lifted off the leg supports and when the tank is completely emptied and subsequently refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five calendar days prior to performing the work. The tank must be in compliance with this rule before it may land on its legs. [District Rule 4623, 5.3.1.3 and 40 CFR 60.112b(a)(2)(iii)] Federally Enforceable Through Title V Permit
17. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623, 5.3.2.1.1 and 40 CFR 60.113b(b)(4)(i)] Federally Enforceable Through Title V Permit
18. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1 and 40 CFR 60.113b(b)(4)(i)] Federally Enforceable Through Title V Permit
19. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1 and 40 CFR 60.113b(b)(4)(i)] Federally Enforceable Through Title V Permit
20. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623, 5.3.2.1.1 and 40 CFR 60.113b(b)(4)(i)] Federally Enforceable Through Title V Permit
21. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623, 5.3.2.1.2, 6.1 and 40 CFR 60.113b(b)(4)(ii)(B)] Federally Enforceable Through Title V Permit
22. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623, 5.3.2.1.2 and 40 CFR 60.113b(b)(4)(ii)(B)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

23. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 24 inches above the stored liquid surface. [District Rule 4623, 5.3.2.1.3 and 40 CFR 60.113b(b)(4)(i)(A)] Federally Enforceable Through Title V Permit
24. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623, 5.3.2.1.4] Federally Enforceable Through Title V Permit
25. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. Except for gaps meeting permit requirements, the primary seal shall completely cover the annular space between the edge of the floating roof and tank wall. [District Rule 4623, 5.3.2.1.5; 40 CFR 60.112b(a)(2)(i)(A), 40 CFR 60.113b(b)(4)(i)(B) and 60.113b(b)(4)(ii)(C)] Federally Enforceable Through Title V Permit
26. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623, 5.3.2.1.6] Federally Enforceable Through Title V Permit
27. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. Except for gaps meeting permit requirements, the secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion. [District Rule 4623, 5.3.2.1.7; 40 CFR 60.112b(a)(2)(i)(B) and 40 CFR 60.113b(b)(4)(ii)(A)] Federally Enforceable Through Title V Permit
28. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623, 5.2 & 5.5.1] Federally Enforceable Through Title V Permit
29. 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 4623, 3.10 and 6.4.8] Federally Enforceable Through Title V Permit
30. Except for automatic bleeder vents, rim vents, and pressure relief vents, each opening in a non-contact external floating roof shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.2.1, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
31. Except for automatic bleeder vents and rim vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid that shall be maintained in a closed position at all times (i.e., no visible gap) except when in actual use. [District Rule 4623, 5.5.2.2.2, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
32. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623, 5.5.2.2.3, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
33. Rim vents shall be equipped with a gasket and shall be set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. [District Rule 4623, 5.5.2.2.4, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
34. Each emergency roof drain shall be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening. The fabric cover must be impermeable if the liquid is drained into the contents of the tanks. [District Rule 4623, 5.5.2.2.5, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
35. External floating roof legs shall be equipped with vapor socks or vapor barriers in order to maintain a gas-tight condition so as to prevent VOC emissions from escaping through the roof leg opening. [District Rule 4623, 5.5.2.2.6] Federally Enforceable Through Title V Permit
36. All wells and similar fixed projections through the floating roof shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.3.1] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

37. The solid guidepole well shall be equipped with a pole wiper and a gasketed cover, seal or lid which shall be in a closed position at all times (i.e., no visible gap) except when the well is in use. [District Rule 4623, 5.5.2.3.2] Federally Enforceable Through Title V Permit
38. The gap between the pole wiper and the solid guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/2 inch. [District Rule 4623, 5.5.2.3.3] Federally Enforceable Through Title V Permit
39. The slotted guidepole well on a external floating roof shall be equipped with the following: a sliding cover, a well gasket, a pole sleeve, a pole wiper, and an internal float and float wiper designed to minimize the gap between the float and the well, and provided the gap shall not exceed 1/8 inch; or shall be equipped with a well gasket, a zero gap pole wiper seal and a pole sleeve that projects below the liquid surface. [District Rule 4623, 5.5.2.4.2] Federally Enforceable Through Title V Permit
40. The gap between the pole wiper and the slotted guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/8 inch. [District Rule 4623, 5.5.2.4.3] Federally Enforceable Through Title V Permit
41. The permittee of external floating roof tanks shall make the primary seal envelope available for unobstructed inspection by the APCO on an annual basis at locations selected along its circumference at random by the APCO. In the case of riveted tanks with toroid-type seals, a minimum of eight locations shall be made available; in all other cases, a minimum of four locations shall be made available. If the APCO suspects a violation may exist the APCO may require such further unobstructed inspection of the primary seal as may be necessary to determine the seal condition for its entire circumference. [District Rule 4623, 6.1] Federally Enforceable Through Title V Permit
42. Measurements of gaps between the tank wall and the primary and secondary seal shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with a volatile organic liquid. [40 CFR 60.113b(b)(1)(i)] Federally Enforceable Through Title V Permit
43. If any source ceases to store volatile organic liquid for a period of 1 year or more, subsequent introduction of volatile organic liquid into the vessel shall be considered an initial fill. [40 CFR 60.113b(b)(1)(iii)] Federally Enforceable Through Title V Permit
44. The permittee shall inspect all floating roof tanks at least once every 12 months to determine compliance with the requirements of this rule. The actual gap measurements of the floating roof primary and secondary seals shall be recorded. Permittee shall measure seal gaps, at one or more floating roof levels when the roof is floating off the roof leg supports, around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location. The inspection results shall be submitted to the APCO as specified in Section 6.3.5. [County Rule 107 (40 CFR 60.113b(b)(1)(i) & (ii); and 40 CFR 60.113b(b)(2)(i) & (ii)] Federally Enforceable Through Title V Permit
45. The permittee shall inspect the primary and secondary seals for compliance with the requirements of this rule every time a tank is emptied or degassed. Actual gap measurements shall be performed when the liquid level is static but not more than 24 hours after the tank roof is re-floated. If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary before filling or refilling the storage vessel. The owner or operator shall notify the APCO in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the APCO the opportunity to inspect the storage vessel prior to refilling. [District Rule 4623, 6.1.3.1.2 and 40 CFR 60.113b(b)(6)] Federally Enforceable Through Title V Permit
46. Permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of Rule 4623. [District Rule 4623, 6.3.5 and 40 CFR 60.115b(b)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

47. Permittee shall maintain the records of the external floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623, 6.3.7] Federally Enforceable Through Title V Permit
48. 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, 6.3 and 40 CFR 60.116b(a)] Federally Enforceable Through Title V Permit
49. Permittee shall notify District at least 30 days prior to the date when unobstructed primary and secondary seal/gap measurements will occur to afford the APCO the opportunity to have an observer present. [40 CFR 60.113b(b)(5)] Federally Enforceable Through Title V Permit
50. Permittee shall make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 CFR 60.113b(b)(4)(i) and (ii). If necessary repairs cannot be made within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the APCO. Such an extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.113b(b)(4)] Federally Enforceable Through Title V Permit
51. The owner or operator of each storage vessel shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Such records shall be retained for the life of the source. [40 CFR 60.116b(b)] Federally Enforceable Through Title V Permit
52. Permittee shall maintain records of daily throughput. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
53. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months and/or whenever there is a change in the source or type of organic liquid stored in the tank. The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in appendix B of District Rule 4623. Records of TVP testing shall be maintained. [District Rule 2520, 9.3.2, 4623, 6.4.3 and 6.2] Federally Enforceable Through Title V Permit
54. Compliance with permit conditions in the Title V permit shall be deemed compliance with District Rule 4623 (amended may 19, 2005) and 40CFR60 Subpart Kb. A permit shield is granted form this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

**ATTACHMENT C**  
Current Permits to Operate  
S-77-9-7, '11-6 and '14-7

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-77-9-7

**EXPIRATION DATE:** 08/31/2017

**SECTION:** SW34 **TOWNSHIP:** 27S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

55,000 BBL RIVETED INTERNAL FLOATING ROOF STORAGE TANK #55GL5 WITH METALLIC SHOE PRIMARY SEAL AND SECONDARY WIPER SEAL

## PERMIT UNIT REQUIREMENTS

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1. The true vapor pressure of liquid stored shall not exceed 9.2 psia. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Total throughput of organic liquid with TVP greater than 5.9 psia and less than or equal to 9.2 psia shall not exceed 190,000 bbl/day nor 85,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Total throughput of organic liquid with TVP less than or equal to 5.9 psia shall not exceed 360,000 bbl/day nor 180,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Combined total throughput of permits S-77-9, '-11, and '-14 shall not exceed 550,000 bbl/day nor 265,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC emission rate from permits S-77-9, '-11, and '-14 shall not exceed 227.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC emission rate from permits S-77-9, '-11, and '-14 shall not exceed 41,913 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC emission rate shall not exceed 152.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Tank shall be equipped with operational temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Permittee shall maintain a record of the liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Permittee shall maintain records of maximum daily throughput and monthly average daily throughput. [District Rule 2201] Federally Enforceable Through Title V Permit
11. When storing organic liquids with true vapor pressure less than 0.5 psia, the requirements of Sections 5.3, 5.5 and 6.1 of District Rule 4623 (Amended May 19, 2005) shall not apply to this unit. This exemption applies to all conditions in this permit referencing Rule 4623 Sections 5.3, 5.5 or 6.1 only. [District Rule 4623, 2.0] Federally Enforceable Through Title V Permit
12. Before switching to the storage of organic liquids with true vapor pressure greater than or equal to 0.5 psia, all covers, seals, and lids shall be inspected by the facility operator to ensure compliance with the provisions of this permit. This includes all conditions containing District Rule 4623 reference. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623] Federally Enforceable Through Title V Permit
14. Gaps between the tank shell and the primary seal shall not exceed 2 1/2 inches. [District Rule 4623] Federally Enforceable Through Title V Permit
15. The cumulative length of all primary seal gaps greater than 1 1/2 inches shall not exceed 10% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
16. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
17. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
18. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623] Federally Enforceable Through Title V Permit
19. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
20. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit
21. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 5 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623] Federally Enforceable Through Title V Permit
22. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
23. The secondary seal shall allow easy insertion of probes up to 2 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
24. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
25. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623] Federally Enforceable Through Title V Permit
26. 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 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

27. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. 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 liquid leak or 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 4623, 6.4] Federally Enforceable Through Title V Permit
28. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit
29. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. [District Rule 4623] Federally Enforceable Through Title V Permit
30. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623] Federally Enforceable Through Title V Permit
31. Rim vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623] Federally Enforceable Through Title V Permit
32. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90% of the opening. The fabric cover must be impermeable. [District Rule 4623] Federally Enforceable Through Title V Permit
33. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623] Federally Enforceable Through Title V Permit
34. The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
35. The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623] Federally Enforceable Through Title V Permit
36. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. [District Rule 4623] Federally Enforceable Through Title V Permit
37. Permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit

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

38. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
39. The tank pressure-vacuum (PV) relief valve shall be set to within 10% of the maximum allowable working pressure of the tank. The PV relief valve shall be permanently labeled with the operating pressure settings. The PV 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's set pressure. [District Rule 4623, 5.2] Federally Enforceable Through Title V Permit
40. Permittee shall notify District at least 7 days prior to the date when unobstructed primary and secondary seal/gap testing will occur. [District Rule 1070] Federally Enforceable Through Title V Permit
41. 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] Federally Enforceable Through Title V Permit
42. This unit was constructed prior to 1973 and has not been modified (as defined in 40 CFR 60.14) or reconstructed (as defined in 40 CFR 60.15) since 1973. Therefore, the requirements of 40 CFR 60 are not applicable to this unit. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
43. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months and/or whenever there is a change in the source or type of organic liquid stored in the tank. The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in appendix B of District Rule 4623. Records of TVP testing shall be maintained. [District Rule 2520, 9.3.2; 4623, 6.2.2, 6.3, 6.4] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-77-11-6

**EXPIRATION DATE:** 08/31/2017

**SECTION:** SW34 **TOWNSHIP:** 27S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

150,000 BBL WELDED EXTERNAL FLOATING ROOF CRUDE OIL STORAGE TANK WITH METALLIC SHOE PRIMARY SEAL AND SECONDARY WIPER SEAL

## PERMIT UNIT REQUIREMENTS

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1. This tank shall only store liquid with a true vapor pressure (TVP) of 5.9 psia or less under all storage conditions. [District Rule 2201 and 4623, 5.1.1 and 40 CFR 60.110b(a), 112b(a)] Federally Enforceable Through Title V Permit
2. Total throughput of organic liquid with TVP less than or equal to 5.9 psia shall not exceed 360,000 bbl/day nor 180,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Combined total throughput of permits S-77-9, '-11, and '-14 shall not exceed 550,000 bbl/day nor 265,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
4. VOC emission rate from permits S-77-9, '-11, and '-14 shall not exceed 227.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC emission rate from permits S-77-9, '-11, and '-14 shall not exceed 41,913 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC emission rate shall not exceed 119.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall maintain a record of the liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.116b(c) and District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain records of maximum daily throughput and monthly average daily throughput. [District Rule 2201] Federally Enforceable Through Title V Permit
9. When storing organic liquids with true vapor pressure less than 0.5 psia, the requirements of Sections 5.3, 5.5 and 6.1 of District Rule 4623 (Amended May 19, 2005) shall not apply to this unit. This exemption applies to all conditions in this permit referencing Rule 4623 Sections 5.3, 5.5 or 6.1 only. [District Rule 4623, 2.0] Federally Enforceable Through Title V Permit
10. When storing organic liquids with true vapor pressure less than 0.75 psia, the requirements of 40 CFR 60 Subpart Kb shall not apply to this unit. This exemption applies to all conditions in this permit referencing 40 CFR 60 Subpart Kb only. [40 CFR 60.112b(a)] Federally Enforceable Through Title V Permit
11. Before switching to the storage of organic liquids with true vapor pressure greater than or equal to 0.5 psia, all covers, seals, and lids shall be inspected by the facility operator to ensure compliance with the provisions of this permit. This includes all conditions containing District Rule 4623 reference. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. Before switching to the storage of organic liquids with true vapor pressure greater than or equal to 0.75 psia, all covers, seals, and lids shall be inspected by the facility operator to ensure compliance with the provisions of this permit. This includes all conditions containing District Rule 4623 or 40 CFR 60 Subpart Kb reference. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
13. This tank shall be equipped with a closure device between the tank shell and roof edge consisting of two seals mounted one above the other; the one below shall be referred to as the primary seal, and the one above shall be referred as the secondary seal. [District NSR Rule; District Rule 4623, 5.3.1.2 and 40 CFR 60.112b(a)(2)(i)] Federally Enforceable Through Title V Permit
14. The external floating roof shall float on the surface of the stored liquid at all times (i.e., off the roof leg supports) except during the initial fill until the roof is lifted off the leg supports and when the tank is completely emptied and subsequently refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five calendar days prior to performing the work. The tank must be in compliance with this rule before it may land on its legs. [District Rule 4623, 5.3.1.3 and 40 CFR 60.112b(a)(2)(iii)] Federally Enforceable Through Title V Permit
15. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623, 5.3.2.1.1 and 40 CFR 60.113b(b)(4)(i)] Federally Enforceable Through Title V Permit
16. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1 and 40 CFR 60.113b(b)(4)(i)] Federally Enforceable Through Title V Permit
17. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1 and 40 CFR 60.113b(b)(4)(i)] Federally Enforceable Through Title V Permit
18. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623, 5.3.2.1.1 and 40 CFR 60.113b(b)(4)(i)] Federally Enforceable Through Title V Permit
19. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623, 5.3.2.1.2, 6.1 and 40 CFR 60.113b(b)(4)(ii)(B)] Federally Enforceable Through Title V Permit
20. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623, 5.3.2.1.2 and 40 CFR 60.113b(b)(4)(ii)(B)] Federally Enforceable Through Title V Permit
21. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 24 inches above the stored liquid surface. [District Rule 4623, 5.3.2.1.3 and 40 CFR 60.113b(b)(4)(i)(A)] Federally Enforceable Through Title V Permit
22. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623, 5.3.2.1.4] Federally Enforceable Through Title V Permit
23. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. Except for gaps meeting permit requirements, the primary seal shall completely cover the annular space between the edge of the floating roof and tank wall. [District Rule 4623, 5.3.2.1.5; 40 CFR 60.112b(a)(2)(i)(A), 40 CFR 60.113b(b)(4)(i)(B) and 60.113b(b)(4)(ii)(C)] Federally Enforceable Through Title V Permit
24. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623, 5.3.2.1.6] Federally Enforceable Through Title V Permit
25. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. Except for gaps meeting permit requirements, the secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion. [District Rule 4623, 5.3.2.1.7; 40 CFR 60.112b(a)(2)(i)(B) and 40 CFR 60.113b(b)(4)(ii)(A)] Federally Enforceable Through Title V Permit

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

26. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623, 5.2 & 5.5.1] Federally Enforceable Through Title V Permit
27. 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 4623, 3.10 and 6.4.8] Federally Enforceable Through Title V Permit
28. Except for automatic bleeder vents, rim vents, and pressure relief vents, each opening in a non-contact external floating roof shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.2.1, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
29. Except for automatic bleeder vents and rim vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid that shall be maintained in a closed position at all times (i.e., no visible gap) except when in actual use. [District Rule 4623, 5.5.2.2.2, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
30. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623, 5.5.2.2.3, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
31. Rim vents shall be equipped with a gasket and shall be set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. [District Rule 4623, 5.5.2.2.4, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
32. Each emergency roof drain shall be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening. The fabric cover must be impermeable if the liquid is drained into the contents of the tanks. [District Rule 4623, 5.5.2.2.5, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
33. External floating roof legs shall be equipped with vapor socks or vapor barriers in order to maintain a gas-tight condition so as to prevent VOC emissions from escaping through the roof leg opening. [District Rule 4623, 5.5.2.2.6] Federally Enforceable Through Title V Permit
34. All wells and similar fixed projections through the floating roof shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.3.1] Federally Enforceable Through Title V Permit
35. The solid guidepole well shall be equipped with a pole wiper and a gasketed cover, seal or lid which shall be in a closed position at all times (i.e., no visible gap) except when the well is in use. [District Rule 4623, 5.5.2.3.2] Federally Enforceable Through Title V Permit
36. The gap between the pole wiper and the solid guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/2 inch. [District Rule 4623, 5.5.2.3.3] Federally Enforceable Through Title V Permit
37. The slotted guidepole well on a external floating roof shall be equipped with the following: a sliding cover, a well gasket, a pole sleeve, a pole wiper, and an internal float and float wiper designed to minimize the gap between the float and the well, and provided the gap shall not exceed 1/8 inch; or shall be equipped with a well gasket, a zero gap pole wiper seal and a pole sleeve that projects below the liquid surface. [District Rule 4623, 5.5.2.4.2] Federally Enforceable Through Title V Permit
38. The gap between the pole wiper and the slotted guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/8 inch. [District Rule 4623, 5.5.2.4.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

39. The permittee of external floating roof tanks shall make the primary seal envelope available for unobstructed inspection by the APCO on an annual basis at locations selected along its circumference at random by the APCO. In the case of riveted tanks with toroid-type seals, a minimum of eight locations shall be made available; in all other cases, a minimum of four locations shall be made available. If the APCO suspects a violation may exist the APCO may require such further unobstructed inspection of the primary seal as may be necessary to determine the seal condition for its entire circumference. [District Rule 4623, 6.1] Federally Enforceable Through Title V Permit
40. Measurements of gaps between the tank wall and the primary and secondary seal shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with a volatile organic liquid. [40 CFR 60.113b(b)(1)(i)] Federally Enforceable Through Title V Permit
41. If any source ceases to store volatile organic liquid for a period of 1 year or more, subsequent introduction of volatile organic liquid into the vessel shall be considered an initial fill. [40 CFR 60.113b(b)(1)(iii)] Federally Enforceable Through Title V Permit
42. The permittee shall inspect all floating roof tanks at least once every 12 months to determine compliance with the requirements of this rule. The actual gap measurements of the floating roof primary and secondary seals shall be recorded. Permittee shall measure seal gaps, at one or more floating roof levels when the roof is floating off the roof leg supports, around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location. The inspection results shall be submitted to the APCO as specified in Section 6.3.5. [County Rule 107 (40 CFR 60.113b(b)(1)(i) & (ii); and 40 CFR 60.113b(b)(2)(i) & (ii)] Federally Enforceable Through Title V Permit
43. The permittee shall inspect the primary and secondary seals for compliance with the requirements of this rule every time a tank is emptied or degassed. Actual gap measurements shall be performed when the liquid level is static but not more than 24 hours after the tank roof is re-floated. If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary before filling or refilling the storage vessel. The owner or operator shall notify the APCO in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the APCO the opportunity to inspect the storage vessel prior to refilling. [District Rule 4623, 6.1.3.1.2 and 40 CFR 60.113b(b)(6)] Federally Enforceable Through Title V Permit
44. Permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of Rule 4623. [District Rule 4623, 6.3.5 and 40 CFR 60.115b(b)] Federally Enforceable Through Title V Permit
45. Permittee shall maintain the records of the external floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623, 6.3.7] Federally Enforceable Through Title V Permit
46. 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, 6.3 and 40 CFR 60.116b(a)] Federally Enforceable Through Title V Permit
47. Permittee shall notify District at least 30 days prior to the date when unobstructed primary and secondary seal/gap measurements will occur to afford the APCO the opportunity to have an observer present. [40 CFR 60.113b(b)(5)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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48. Permittee shall make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 CFR 60.113b(b)(4)(i) and (ii). If necessary repairs cannot be made within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the APCO. Such an extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.113b(b)(4)] Federally Enforceable Through Title V Permit
49. The owner or operator of each storage vessel shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Such records shall be retained for the life of the source. [40 CFR 60.116b(b)] Federally Enforceable Through Title V Permit
50. Permittee shall maintain records of daily throughput. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
51. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months and/or whenever there is a change in the source or type of organic liquid stored in the tank. The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in appendix B of District Rule 4623. Records of TVP testing shall be maintained. [District Rule 2520, 9.3.2, 4623, 6.4.3 and 6.2] Federally Enforceable Through Title V Permit
52. Compliance with permit conditions in the Title V permit shall be deemed compliance with District Rule 4623 (amended may 19, 2005) and 40CFR60 Subpart Kb. A permit shield is granted form this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-77-14-7

**EXPIRATION DATE:** 08/31/2017

**SECTION:** SW34 **TOWNSHIP:** 27S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

126,000 BBL WELDED EXTERNAL FLOATING ROOF TANK #126GL6 WITH METALLIC SHOE PRIMARY SEAL AND SECONDARY WIPER SEAL

## PERMIT UNIT REQUIREMENTS

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1. The true vapor pressure of liquid stored shall not exceed 9.2 psia. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Total throughput of organic liquid with TVP greater than 5.9 psia and less than or equal to 9.2 psia shall not exceed 190,000 bbl/day nor 85,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Total throughput of organic liquid with TVP less than or equal to 5.9 psia shall not exceed 360,000 bbl/day nor 180,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Combined total throughput of permits S-77-9, '-11, and '-14 shall not exceed 550,000 bbl/day nor 265,000 bbl/day on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC emission rate from permits S-77-9, '-11, and '-14 shall not exceed 227.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC emission rate from permits S-77-9, '-11, and '-14 shall not exceed 41,913 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC emission rate shall not exceed 129.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain a record of the liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.116b(c) and District Rule 2201] Federally Enforceable Through Title V Permit
9. Permittee shall maintain records of maximum daily throughput and monthly average daily throughput. [District Rule 2201] Federally Enforceable Through Title V Permit
10. When storing organic liquids with true vapor pressure less than 0.5 psia, the requirements of Sections 5.3, 5.5 and 6.1 of District Rule 4623 (Amended May 19, 2005) shall not apply to this unit. This exemption applies to all conditions in this permit referencing Rule 4623 Sections 5.3, 5.5 or 6.1 only. [District Rule 4623, 2.0] Federally Enforceable Through Title V Permit
11. When storing organic liquids with true vapor pressure less than 0.75 psia, the requirements of 40 CFR 60 Subpart Kb shall not apply to this unit. This exemption applies to all conditions in this permit referencing 40 CFR 60 Subpart Kb only. [40 CFR 60.112b(a)] Federally Enforceable Through Title V Permit
12. Before switching to the storage of organic liquids with true vapor pressure greater than or equal to 0.5 psia, all covers, seals, and lids shall be inspected by the facility operator to ensure compliance with the provisions of this permit. This includes all conditions containing District Rule 4623 reference. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. Before switching to the storage of organic liquids with true vapor pressure greater than or equal to 0.75 psia, all covers, seals, and lids shall be inspected by the facility operator to ensure compliance with the provisions of this permit. This includes all conditions containing District Rule 4623 or 40 CFR 60 Subpart Kb reference. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
14. This tank shall be equipped with a closure device between the tank shell and roof edge consisting of two seals mounted one above the other; the one below shall be referred to as the primary seal, and the one above shall be referred as the secondary seal. [District NSR Rule; District Rule 4623, 5.3.1.2 and 40 CFR 60.112b(a)(2)(i)] Federally Enforceable Through Title V Permit
15. The external floating roof shall float on the surface of the stored liquid at all times (i.e., off the roof leg supports) except during the initial fill until the roof is lifted off the leg supports and when the tank is completely emptied and subsequently refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five calendar days prior to performing the work. The tank must be in compliance with this rule before it may land on its legs. [District Rule 4623, 5.3.1.3 and 40 CFR 60.112b(a)(2)(iii)] Federally Enforceable Through Title V Permit
16. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623, 5.3.2.1.1 and 40 CFR 60.113b(b)(4)(i)] Federally Enforceable Through Title V Permit
17. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1 and 40 CFR 60.113b(b)(4)(i)] Federally Enforceable Through Title V Permit
18. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1 and 40 CFR 60.113b(b)(4)(i)] Federally Enforceable Through Title V Permit
19. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623, 5.3.2.1.1 and 40 CFR 60.113b(b)(4)(i)] Federally Enforceable Through Title V Permit
20. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623, 5.3.2.1.2, 6.1 and 40 CFR 60.113b(b)(4)(ii)(B)] Federally Enforceable Through Title V Permit
21. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623, 5.3.2.1.2 and 40 CFR 60.113b(b)(4)(ii)(B)] Federally Enforceable Through Title V Permit
22. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 24 inches above the stored liquid surface. [District Rule 4623, 5.3.2.1.3 and 40 CFR 60.113b(b)(4)(i)(A)] Federally Enforceable Through Title V Permit
23. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623, 5.3.2.1.4] Federally Enforceable Through Title V Permit
24. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. Except for gaps meeting permit requirements, the primary seal shall completely cover the annular space between the edge of the floating roof and tank wall. [District Rule 4623, 5.3.2.1.5; 40 CFR 60.112b(a)(2)(i)(A), 40 CFR 60.113b(b)(4)(i)(B) and 60.113b(b)(4)(ii)(C)] Federally Enforceable Through Title V Permit
25. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623, 5.3.2.1.6] Federally Enforceable Through Title V Permit
26. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. Except for gaps meeting permit requirements, the secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion. [District Rule 4623, 5.3.2.1.7; 40 CFR 60.112b(a)(2)(i)(B) and 40 CFR 60.113b(b)(4)(ii)(A)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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27. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623, 5.2 & 5.5.1] Federally Enforceable Through Title V Permit
28. 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 4623, 3.10 and 6.4.8] Federally Enforceable Through Title V Permit
29. Except for automatic bleeder vents, rim vents, and pressure relief vents, each opening in a non-contact external floating roof shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.2.1, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
30. Except for automatic bleeder vents and rim vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid that shall be maintained in a closed position at all times (i.e., no visible gap) except when in actual use. [District Rule 4623, 5.5.2.2.2, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
31. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623, 5.5.2.2.3, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
32. Rim vents shall be equipped with a gasket and shall be set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. [District Rule 4623, 5.5.2.2.4, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
33. Each emergency roof drain shall be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening. The fabric cover must be impermeable if the liquid is drained into the contents of the tanks. [District Rule 4623, 5.5.2.2.5, and 40 CFR 60.112b(a)(2)(ii)] Federally Enforceable Through Title V Permit
34. External floating roof legs shall be equipped with vapor socks or vapor barriers in order to maintain a gas-tight condition so as to prevent VOC emissions from escaping through the roof leg opening. [District Rule 4623, 5.5.2.2.6] Federally Enforceable Through Title V Permit
35. All wells and similar fixed projections through the floating roof shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.3.1] Federally Enforceable Through Title V Permit
36. The solid guidepole well shall be equipped with a pole wiper and a gasketed cover, seal or lid which shall be in a closed position at all times (i.e., no visible gap) except when the well is in use. [District Rule 4623, 5.5.2.3.2] Federally Enforceable Through Title V Permit
37. The gap between the pole wiper and the solid guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/2 inch. [District Rule 4623, 5.5.2.3.3] Federally Enforceable Through Title V Permit
38. The slotted guidepole well on a external floating roof shall be equipped with the following: a sliding cover, a well gasket, a pole sleeve, a pole wiper, and an internal float and float wiper designed to minimize the gap between the float and the well, and provided the gap shall not exceed 1/8 inch; or shall be equipped with a well gasket, a zero gap pole wiper seal and a pole sleeve that projects below the liquid surface. [District Rule 4623, 5.5.2.4.2] Federally Enforceable Through Title V Permit
39. The gap between the pole wiper and the slotted guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/8 inch. [District Rule 4623, 5.5.2.4.3] Federally Enforceable Through Title V Permit

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40. The permittee of external floating roof tanks shall make the primary seal envelope available for unobstructed inspection by the APCO on an annual basis at locations selected along its circumference at random by the APCO. In the case of riveted tanks with toroid-type seals, a minimum of eight locations shall be made available; in all other cases, a minimum of four locations shall be made available. If the APCO suspects a violation may exist the APCO may require such further unobstructed inspection of the primary seal as may be necessary to determine the seal condition for its entire circumference. [District Rule 4623, 6.1] Federally Enforceable Through Title V Permit
41. Measurements of gaps between the tank wall and the primary and secondary seal shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with a volatile organic liquid. [40 CFR 60.113b(b)(1)(i)] Federally Enforceable Through Title V Permit
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44. The permittee shall inspect the primary and secondary seals for compliance with the requirements of this rule every time a tank is emptied or degassed. Actual gap measurements shall be performed when the liquid level is static but not more than 24 hours after the tank roof is re-floated. If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary before filling or refilling the storage vessel. The owner or operator shall notify the APCO in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the APCO the opportunity to inspect the storage vessel prior to refilling. [District Rule 4623, 6.1.3.1.2 and 40 CFR 60.113b(b)(6)] Federally Enforceable Through Title V Permit
45. Permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of Rule 4623. [District Rule 4623, 6.3.5 and 40 CFR 60.115b(b)] Federally Enforceable Through Title V Permit
46. Permittee shall maintain the records of the external floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623, 6.3.7] Federally Enforceable Through Title V Permit
47. 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, 6.3 and 40 CFR 60.116b(a)] Federally Enforceable Through Title V Permit
48. Permittee shall notify District at least 30 days prior to the date when unobstructed primary and secondary seal/gap measurements will occur to afford the APCO the opportunity to have an observer present. [40 CFR 60.113b(b)(5)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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49. Permittee shall make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 CFR 60.113b(b)(4)(i) and (ii). If necessary repairs cannot be made within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the APCO. Such an extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.113b(b)(4)] Federally Enforceable Through Title V Permit
50. The owner or operator of each storage vessel shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Such records shall be retained for the life of the source. [40 CFR 60.116b(b)] Federally Enforceable Through Title V Permit
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52. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months and/or whenever there is a change in the source or type of organic liquid stored in the tank. The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in appendix B of District Rule 4623. Records of TVP testing shall be maintained. [District Rule 2520, 9.3.2, 4623, 6.4.3 and 6.2] Federally Enforceable Through Title V Permit
53. Compliance with permit conditions in the Title V permit shall be deemed compliance with District Rule 4623 (amended may 19, 2005) and 40CFR60 Subpart Kb. A permit shield is granted form this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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# ATTACHMENT D

## Emissions Increases

SSIPE (lb/yr)				
NOx	VOC	CO	SOx	PM10
0	0	0	0	0

# ATTACHMENT E

## Application



RECEIVED  
JUL 02 2014  
SJVAPCD  
Southern Region

**Shell Pipeline Company LP**  
20945 S. Wilmington Ave.  
Carson, CA 90810

July 1, 2014

Mr. Dave Warner  
Director Permit Services  
San Joaquin Valley Air Pollution Control District  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244

**re: Application to Modify Title V Permit  
District Facility No. S-77**

Dear Mr. Warner:

Please find attached an application form and compliance certification form for a Title V minor modification of Shell Pipeline Company's (Shell) federal operating permit. Shell is required to implement Authority to Construct S-77-9-8 and S-77-14-8 into their Title V permit pursuant to Condition #2 of the subject ATCs.

With this application shell is also requesting a minor modification of permit S-77-11-6 condition of approval number 43 and permit S-77-14-8 condition of approval number 45 to correct these permits and reflect the current Rule 4623 seal inspection time frame of 48 hours as specified in Section 6.1.3.2 of the rule.

This application submittal has been prepared by Insight Environmental Consultants at the request of Shell. If you have any questions regarding this project or need additional information, please contact undersigned at (310) 816-2250 or Mr. Doug McCormick of Insight Environmental Consultants at (661) 282-2200.

Sincerely,

Kawika Tupou  
Environmental Advisor

Attachments

cc: Doug McCormick, Insight Environmental Consultants (w/ attachments)

# San Joaquin Valley Air Pollution Control District

[www.valleyair.org](http://www.valleyair.org)

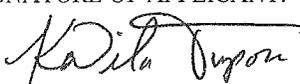
RECEIVED

JUL 02 2014

SJVAPCD  
Southern Region

## Permit Application For:

ADMINISTRATIVE AMENDMENT    
  MINOR MODIFICATION    
  SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO: <p style="text-align: center;">Shell Pipeline Company LP</p>	
2. MAILING ADDRESS:  STREET/P.O. BOX: <u>20945 S. Wilmington Ave.</u>  CITY: <u>Carson</u> STATE: <u>CA</u> 9-DIGIT ZIP CODE: <u>90810</u>	
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:  STREET: <u>Carneras Pump Station</u> CITY: _____  <u>SW</u> ¼ SECTION <u>34</u> TOWNSHIP <u>27S</u> RANGE <u>20E</u>	INSTALLATION DATE:
4. GENERAL NATURE OF BUSINESS: Crude Oil Transport	
5. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary)  Modify Title V permit to implement the following ATCs into the Title V permit:  S-77-9-8, S-77-14-8	
6. TYPE OR PRINT NAME OF APPLICANT:  Kawika Tupou	TITLE OF APPLICANT:  Environmental Advisor
7. SIGNATURE OF APPLICANT:  	DATE: <u>6/18/14</u>  PHONE: 310-816-2250 FAX: EMAIL: Kawika.Tupou@Shell.com

**For APCD Use Only:**

No Money

DATE STAMP	FILING FEE RECEIVED: \$ _____ CHECK#: _____
	DATE PAID: _____
	PROJECT NO: <u>S-1143043</u> FACILITY ID: <u>S-77</u>

JUL 02 2014

SJVAPCD  
Southern Region

**San Joaquin Valley  
Unified Air Pollution Control District**

**TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM**

**I. TYPE OF PERMIT ACTION (Check appropriate box)**

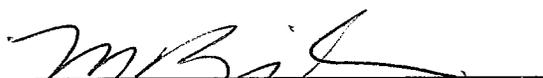
- SIGNIFICANT PERMIT MODIFICATION       ADMINISTRATIVE  
 MINOR PERMIT MODIFICATION               AMENDMENT

COMPANY NAME: <b>Shell Pipeline Company Lp</b>	FACILITY ID: <b>S - 77</b>
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name:	
3. Agent to the Owner:	

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

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

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

  
 \_\_\_\_\_  
 Signature of Responsible Official

6/18/14  
 \_\_\_\_\_  
 Date

Michael W. Bringham  
 \_\_\_\_\_  
 Name of Responsible Official (please print)

Operations Manager  
 \_\_\_\_\_  
 Title of Responsible Official (please print)

Implement ATC #'s S-77-9-8 and '-14-8 into the Title V Permit.