

SJVAPCD Oil and Gas Reference Guide

Rule 4401

Steam-Enhanced Crude Oil
Production Wells

Rule 4409

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

Rule 4623

Storage of Organic Liquids

Rule 4624

Transfer of Organic Liquid

This is intended as a draft copy of the SJVAPCD Oil and Gas Reference Guide. Please send all comments to compliance@valleyair.org.

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Rule 4401
Steam-Enhanced Crude Oil Production Wells

Steam-enhanced crude oil production wells include:

VOC collection and control systems include:

Front line production equipment includes:

Applies to all steam-enhanced crude oil production wells, any associated VOC collection and control systems, and front line production equipment.

Cyclic Wells

Steam Drive Wells

Other Steam Enhanced

Hard-piping, ductwork connections and flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device with a VOC destruction or removal efficiency of at least 99%, that transports gases or vapors back to a process system.

The first vessel or tank which receives crude oil/fluids directly from wells subject to this Rule including, but not limited to:

- Wash tanks
- Free water knockouts
- Separators

- Operated under atmospheric or close to atmospheric pressure
- Subsequent downstream vessels are exempt
- Gauge tanks are not Front Line Production Equipment

District Inspection

Operator Inspection

Administrative Requirements

Exemptions

Rule Amendments



Rule 4401
Steam-Enhanced Crude Oil Production Wells
Exemptions

Well undergoing service or repair when not producing

Components serving produced fluid line

Enclosed pressure relief devices, pumps, and compressors controlled with a VOC collection system

Components buried underground

Components in Vacuum service

Up to 40 wells owned by a company undergoing pilot testing, provided:

- Production zone on property has not been steamed in past 2 years**
- The wells are more than 1,000 feet from an existing well vent vapor collection system operated by the company**
- The operation is under District Permit**

Up to 40 wells owned by a company undergoing well stimulation, provided:

- The wells are more than 1,000 feet from an existing well vent vapor collection system operated by the company**
- The operation is under District Permit**

Up to 5 cyclic wells owned by a company that is not a small producer and up to 20 cyclic wells owned by a small producer, provided:

- The wells are more than 1,000 feet from an existing well vent vapor collection system operated by the company**
- The operation is under District Permit**

Components and Equipment that are exempt from District Rules may still be subject to the California Oil and Gas Regulation(COGR). To learn more, click here.

Information on this slide is reflective of the 2023 Rule Amendments .To learn more, click here.



Rule 4401
Steam-Enhanced Crude Oil Production Wells
Well Types

Cyclic Well

A crude oil production well, which is periodically (at least once in the preceding two (2) year period) injected with steam from any source for the purpose of enhancing oil production.

Steam Drive Well

A crude oil production well producing from the same production zone in which a steam injection well is completed and is within:

- 250 ft of a steam injection well, if the injection well is within a production well pattern of 2.5 acres or smaller*
- 350 ft of a steam injection well, if the injection well is within a production well patterns of greater than 2.5 acres, but < or + 5 acres*
- 500 ft of a steam injection well, if the injection well is within a production well pattern larger than 5 acres*
- 1,000 ft of a steam injection well, and responds to steam injected in an irregular production well pattern, and exhibits visible emissions*

Other Steam Enhanced

Any other well in which the temperature of crude oil is raised, by steam injection, above the production zone temperature that existed prior to the injection of steam.



Rule 4401
Steam-Enhanced Crude Oil Production Wells
District Inspection

An operator shall be in violation of this rule if any District inspection demonstrates that one or more of the following exist

- Open-ended line or valve
- Major Liquid Leak
- Gas Leak Greater Than 50,000ppmv
- Exceeding the allowable number of leaks
- Failure to repair within the timeframe of Table 6

Method 21 Inspection

Upon discovery, an operator shall minimize a component leak no later than one (1) hour after detection.

The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the repair period in Table 6

Per Section 6.3.3.1 leaks detected with Optical Gas Imaging

***If accessible:
Must be measured within 2 calendar days using Method 21***

***If inaccessible or unsafe-to-monitor:
Must be measured within 14 calendar days using Method 21***

Component Types

Component Categories

Information on this slide is reflective of the 2023 Rule Amendments .To learn more ,click here.



Rule 4401
Steam-Enhanced Crude Oil Production Wells
Operator Inspection

An operator shall be in violation of this rule if any operator inspection demonstrates that one or more of the following exist

- Open-ended line or valve
- Major Liquid Leak
- Gas Leak Greater Than 50,000ppmv
- Exceeding the allowable number of leaks
- Failure to repair within the timeframe of Table 6

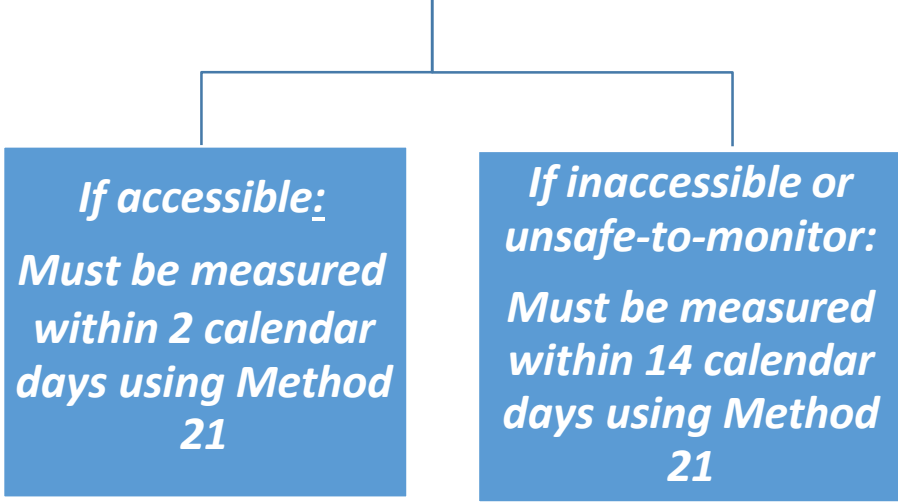
Required Quarterly

Method 21 Inspection

Upon discovery, an operator shall minimize a component leak no later than one (1) hour after detection.

The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the repair period in Table 6

Per Section 6.3.3.1 leaks detected with Optical Gas Imaging



Component Types

Component Categories

For Unsafe-to-monitor components only: Quarterly inspection not required. Inspect at turnaround instead.

Information on this slide is reflective of the 2023 Rule Amendments .To learn more ,click here.



Rule 4401
Steam-Enhanced Crude Oil Production Wells
Leak Description

Gas leaks >50,000ppm
Gas leaks 400 to 50,000ppm
(Minor And Major)

Major liquid leak: A visible mist or continuous flow of liquid that is not seal lubricant

Minor liquid leak: A liquid leak, except seal lubricant, that is not a major liquid leak and drips liquid at more than 3 drops per minute

Table 2 – Gas Leak in ppmv as Methane after June 30, 2024		
Type of Component	Major Gas Leak	Minor Gas Leak
1. PRDs	Greater than 10,000 to 50,000 ppm	400 to 10,000 ppm
2. Components other than PRDs	Greater than 10,000 to 50,000 ppm	500 to 10,000 ppm

Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from a component into a container is not considered a leak provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere.

Information on this slide is reflective of the 2023 Rule Amendments .To learn more ,click here.



Rule 4401
Steam-Enhanced Crude Oil Production Wells
Leak Minimization & Repair Period

Section 5.5.4 After leak minimization, a facility must comply with one of the following requirements per Table 6:

- Repair or replace the leaking component**
- Vent the leaking component to a VOC collection and control system**
 - Remove the leaking component from operation**

Failure to comply with any of the above is a **violation of this rule.**

Table 6 – Repair Period after June 30, 2024

Type of Leak	Repair Period in Calendar Days
Gas Leaks	
Minor Gas Leak	14
Major Gas Leak less than or equal to 50,000 ppmv	5
Liquid Leaks	
Minor Liquid Leak	3
Major Liquid Leak	1

If the repair requires a rig-up operation, an extension of up to 30 calendar days may be granted. To learn more, click here.

For Critical and Essential components only: minimize leak if possible and repair during next process unit turnaround, in no case later than one year from leak detection date.

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Rule 4401
Steam-Enhanced Crude Oil Production Wells
Exceeding the Number of Allowable Leaks

Rule 4401
Table 4
Allowable
number of
leaks based
on number of
wells
connected in
the system

Table 4 – Number of Allowable Leaks after June 30,2024	
Number of Steam-Enhanced Crude Oil Production Wells Connected to a VOC Collection and Control System.	Number of Allowable Leaks
1 to 5	0
6 to 25	3
26 to 50	6
51 to 100	8
101 to 250	10
251 to 500	15
More than 500	One (1) for each 20 wells tested with a minimum of 50 wells tested.

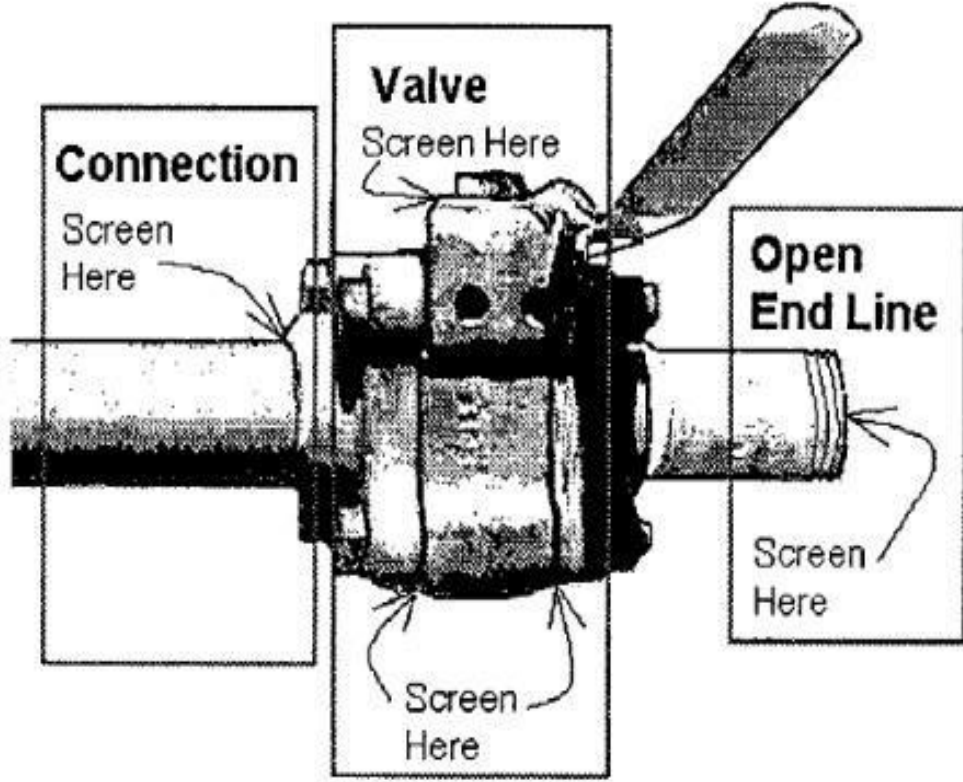
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Rule 4401
Steam-Enhanced Crude Oil Production Wells
Open Ended Line or Valve

A line or valve, except for pressure relief devices and process drains, having one side of the line or valve seat in contact with the process fluid and one side open to the atmosphere, either directly or through an open piping.

Drain origination points and drain termination points are not open-ended lines. Process drains are not open-ended lines.



Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times is a violation under Section 5.2.2.1.



Rule 4401
Steam-Enhanced Crude Oil Production Wells
Rig-Up Operations

An activity requiring any rig or pulling unit used for drilling and maintaining surface or downhole well equipment

Does the repair require a Rig-Up Operation to complete?

Grants an extended repair period for up to 30 calendar days from initial leak detection provided the following conditions are met



Submit notification for extended repair to Oil.Gas@valleyair.org District staff within the repair time in [Table 6](#)
Include the permit number. Date, time, and concentration of leak
Proof that extended repair was necessary



Submit notification for extended repair to Oil.Gas@valleyair.org within 7 calendar days of completing the repairs and re-inspecting the component



Failure to comply with the previous steps shall be a violation of the rule

Notifications for extended repair can be sent to Oil.Gas@valleyair.org

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Rule 4401
Steam-Enhanced Crude Oil Production Wells
Administrative Requirements

<i>Submit Operator Management Plan by January 30th each year per Section 6.6 must include:</i>	<i>Maintain LDAR inspection log at all times (Quarterly Inspection) per Section 6.4 must Include:</i>
<ul style="list-style-type: none"> • <i>Description of all wells and associated VOC collection and control system</i> 	<ul style="list-style-type: none"> • <i>Date, time, location, and concentration of leak</i>
<ul style="list-style-type: none"> • <i>Identify and describe hazards</i> 	<ul style="list-style-type: none"> • <i>Date of repair, replacement, removal of operation</i>
<ul style="list-style-type: none"> • <i><u>Identify critical, essential, inaccessible, and unsafe-to-monitor components</u></i> 	<ul style="list-style-type: none"> • <i>Date of re-inspection and concentration</i>
<ul style="list-style-type: none"> • <i><u>Identify number and location of components subject</u></i> 	<ul style="list-style-type: none"> • <i><u>Total components inspected and % leaking</u></i>
<ul style="list-style-type: none"> • <i><u>Description of training standards for personnel that inspect and repair components</u></i> 	<ul style="list-style-type: none"> • <i><u>Critical or essential component(s) method to minimize</u></i>

Information on this slide is reflective of the 2023 Rule Amendments. To learn more , click here.



Rule 4401
Steam-Enhanced Crude Oil Production Wells
Rule Amendment Summary

**Changes that took effect
June 15, 2023:**

Operator Management Plans shall be submitted every year whether there are changes or not

The following exemptions have been removed from Rule 4401:

One-half inch nominal or less stainless steel tube fittings.

Components exclusively handling gas/vapor or liquid with a VOC content of 10% by weight or less.

Changes that take effect on and after July 1, 2024:

Operators shall conduct quarterly inspections rather than annual.

Gas leak thresholds listed in [Table 2](#) take effect. Minor gas leak threshold is 500 ppm for components other than PRDs

If a leaking component requires a rig-up operation to complete repair, an extended repair period may be granted for up to 30 calendar days from initial leak detection.

The number of allowable leaks as listed in [Table 4](#) takes effect. The number of allowable leaks for facilities with 1 to 5 wells decreases from 3 to 0.

All leaks detected with Optical Gas Imaging are to be measured using EPA Method 21 within 2 calendar days of initial Optical Gas Imaging detection or within 14 calendar days for inaccessible or unsafe to monitor components

Repair periods listed in [Table 6](#) take effect. Repair period for gas leaks over 50,000 ppm and for major liquid leaks is one day.



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

Rule 4409 applies to all components containing or contacting VOC streams at light crude oil production facilities, natural gas production facilities, and natural gas processing facilities.



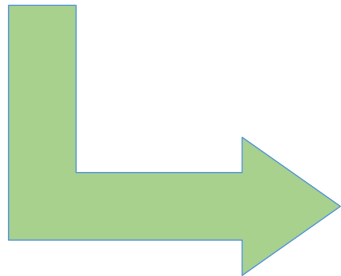
Light crude oil production facilities



Natural gas processing facilities



Natural gas production facilities



Equipment subject from the above facilities includes, but is not limited to: production wells, vapor recovery systems, gas destruction devices, separators, vessels, scrubbing systems, compressors, pumps, knock-outs, or dehydration units.

District Inspection

Operator Inspection

Administrative Requirements

Exemptions

Rule Amendments



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

Components subject to Rules 4623 and 4401

Components buried underground

Components handling liquid streams which have <10% by weight evaporation at 150C

*Components exclusively handling **commercial quality natural gas***

Components in vacuum service

*Pressure relief devices, pumps, and compressors equipped with a **closed-vent system***

Components handling liquid with 90% by volume or greater water concentration if components are located after initial oil/water separation

Components at oil production facilities exclusively handling gas/vapor or liquid with a VOC content ≤10% by weight

Components at natural gas production facilities exclusively handling gas/vapor or liquid with a VOC content <1% by weight.

Closed-vent System: a APCO-approved system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a overall VOC collection and destruction or removal efficiency of at least 95%, or that transports gases or vapors back to a process system.

Commercial Quality Natural Gas: mixture of gaseous hydrocarbons with ≥80% methane by volume and <10% by weight VOC. Must meet criteria for PUC, General Order 58-A

Components and Equipment that are exempt from District Rules may still be subject to the California and Gas Regulation. To learn more, click here

Information on this slide is reflective of the 2023 Rule Amendments. To learn more, click here.



Rule 4409

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

Definitions

Light crude oil production facilities

That portion of a crude oil production facility at which light crude oil production and handling are conducted, as defined in the North

American Industry Classification System 211111

Light crude oil

Crude oil with API gravity equal to or greater than 30 degrees and a true vapor pressure (TVP) greater than 1.5 psia

Natural gas processing facilities

A facility engaged in the separation of natural gas liquids from field gas and/or fractionating of natural gas liquids to natural gas products, such as ethane, propane, butane, and natural gasoline

Excluded from the definition are compressor stations, dehydration units, sweetening units, field treatment, underground storage facilities, liquefied natural gas units, and field gas gathering systems unless these facilities are located at a natural gas processing facility.

Natural gas production facilities

That portion of a gas production facility at which natural gas production and handling are conducted, as defined North American Industry Classification System (NAICS) as Industry No. 211111



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

An operator shall be in violation of this rule if any District inspection demonstrates that one or more of the following exist

- [Open-ended line or valve](#)
- [Major Liquid Leak](#)
- [Gas Leak Greater Than 50,000ppmv](#)
- [Exceeding the allowable number of leaks](#)
- [Failure to repair within the timeframe of Table 6](#)

[Method 21 Inspection](#)

Upon discovery, an operator shall minimize a component leak no later than one (1) hour after detection.

[The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the repair period in Table 6](#)

Per Section 6.3.2 leaks detected with Optical Gas Imaging

**If accessible:
Must be measured within 2 calendar days using Method 21**

**If inaccessible or unsafe-to-monitor:
Must be measured within 14 calendar days using Method 21**

[Component Types](#)

[Component Categories](#)

Information on this slide is reflective of the 2023 Rule Amendments. To learn more , click here.



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

During Operator inspections, the following leak types do not constitute a violation so long as they are repaired within the timeframes of Table 6

- [Open Ended Line Or Valve](#)
- [Major Liquid Leak](#)
- [Gas leak greater than 50,000ppmv](#)
- [Major or minor leak](#)

Required Quarterly

[Method 21 Inspection](#)

Upon discovery, an operator shall minimize a component leak no later than one (1) hour after detection.

[All District findings must be repaired within the timeframes of Table 6](#)

[Only leaking components not repaired within the required timeframes in Table 6 shall be counted as violation.](#)

[The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the repair period in Table 6](#)

Per Section 6.3.2 leaks detected with Optical Gas Imaging

If accessible: Must be measured within 2 calendar days using Method 21

If inaccessible or unsafe-to-monitor: Must be measured within 14 calendar days using Method 21

[Component Types](#)

[Component Categories](#)

Information on this slide is reflective of the 2023 Rule Amendments. To learn more , click here.



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

Gas leaks >50,000ppm
Gas leaks 400 to 50,000ppm (Minor And Major)

Major liquid leak: A visible mist or continuous flow of liquid that is not seal lubricant

Minor liquid leak: A liquid leak, except seal lubricant, that is not a major liquid leak and drips liquid at more than 3 drops per minute

Table 2 – Gas Leak in ppmv as Methane after June 30, 2024			
Type of Component	Major Gas Leak	Minor Gas Leak	
		Components in Liquid Service	Components in Gas/Vapor Service
1. Components other than PRDs	Greater than 10,000	500 to 10,000	500 to 10,000
2. PRDs	Greater than 10,000	200 to 10,000	400 to 10,000

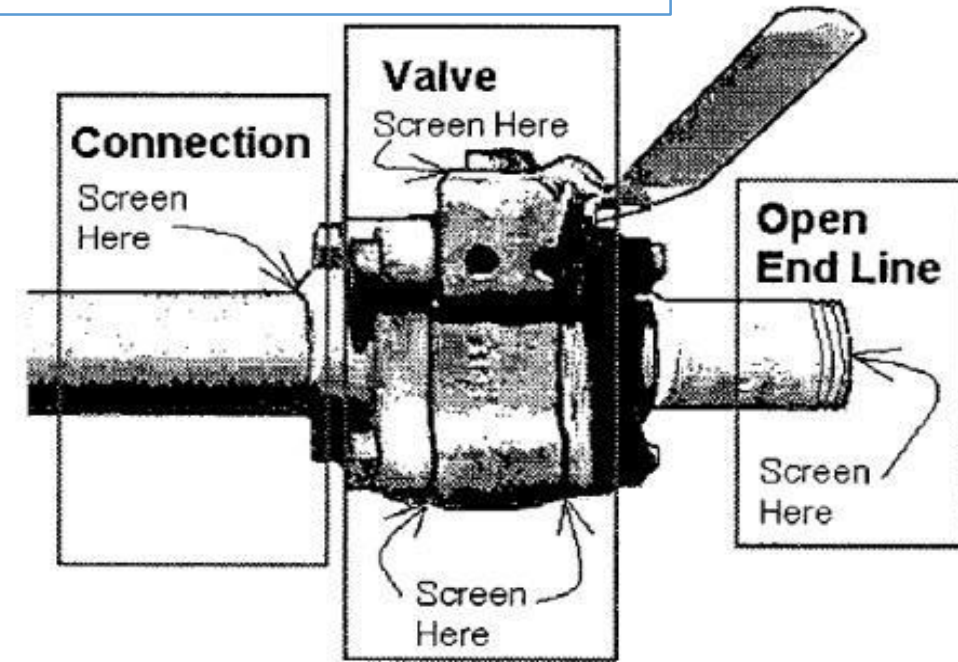
Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from a component into a container is not considered a leak provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere.

Information on this slide is reflective of the 2023 Rule Amendments. To learn more , click here.



Rule 4409
Components at Light Crude Oil Production Facilities, Natural Gas Production Facilities, and Natural Gas Processing Facilities
Open Ended Line or Valve

A line or valve, except for pressure relief devices and process drains, having one side of the line or valve seat in contact with the process fluid and one side open to the atmosphere, either directly or through an open piping.



Drain origination points and drain termination points are not open-ended lines. Process drains are not open-ended lines.

Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times is a violation under Section 5.1.4.1.



Rule 4409
Components at Light Crude Oil Production Facilities, Natural Gas Production Facilities, and Natural Gas Processing Facilities
Leak Minimization & Enforcement

Section 5.3.5 After leak minimization, a facility must comply with one of the following requirements per Table 6:

- **Repair or replace the leaking component**
- **Vent the leaking component to a VOC collection and control system**
- **Remove the leaking component from operation**

Failure to comply with one of the above a *violation* of this Rule

- **For all Component Categories: Repair as soon as practicable, but no later than the next turnaround or 2 years after the 5th major leak within 12 months (whichever comes first)**

Table 6 – Repair Period after June 30th, 2024

Type of Leak	Repair Period in Calendar Days	Extended Repair Period in Calendar Days
Gas Leaks		
Minor Gas Leak	7	0
Major Gas Leak greater than 10,000 ppmv but equal to or less than 50,000 ppmv	3	2
Major Gas Leak greater than or equal to 50,000 ppmv	1	0
Liquid Leaks		
Minor Liquid Leak	1	0
Major Liquid Leak	1	0

Information on this slide is reflective of the 2023 Rule Amendments. To learn more , click here.



Rule 4409
Components at Light Crude Oil Production Facilities, Natural Gas Production Facilities, and Natural Gas Processing Facilities
Exceeding the Number of Allowable Leaks

Polished Rod Stuffing Boxes (PRSBs):

Leak from PRSBs found during District Inspections are not counted in determining compliance with maximum allowable leaking components provided they are repaired within the timeframes of [Table 6](#).

Table 4 – Maximum Allowable Leaking Components Per Inspection After June 30, 2024

	Leak Threshold 200 or Less Components Inspected	More than 200 Components Inspected
500 to 10,000 ppmv	5	2% of total inspected
10,000 to 50,000 ppmv	2	1% of total inspected

Information on this slide is reflective of the 2023 Rule Amendments. To learn more , click here.



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

An activity requiring any rig or pulling unit used for drilling and maintaining surface or downhole well equipment

Does the repair require a Rig-Up Operation to complete?

Grants an extended repair period for up to 30 calendar days from initial leak detection provided the following conditions are met



Submit notification for extended repair to Oil.Gas@valleyair.org District staff within the repair time in [Table 6](#)
Include the permit number. Date, time, and concentration of leak
Proof that extended repair was necessary



Submit notification for extended repair to Oil.Gas@valleyair.org within 7 calendar days of completing the repairs and re-inspecting the component



Failure to comply with the previous steps shall be a violation of the rule

Notifications for extended repair can be sent to Oil.Gas@valleyair.org

Information on this slide is reflective of the 2023 Rule Amendments. To learn more , click here.



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

<i>Submit Operator Management Plan by January 30th each year per Section 6.1 must include:</i>	<i>Maintain LDAR inspection log at all times (Quarterly Inspection) per Section 6.2 must Include:</i>
<ul style="list-style-type: none"> <i>Description of all connected wells and associated VOC collection and control system</i> 	<ul style="list-style-type: none"> <i>Date, time, location, and concentration of leak</i>
<ul style="list-style-type: none"> <i>Identify and describe hazards</i> 	<ul style="list-style-type: none"> <i>Date of repair, replacement, removal of operation</i>
<ul style="list-style-type: none"> <i><u>Identify critical, essential, major inaccessible, and unsafe-to-monitor components</u></i> 	<ul style="list-style-type: none"> <i>Date of re- inspection and concentration</i>
<ul style="list-style-type: none"> <i><u>Identify number and location of components subject</u></i> 	<ul style="list-style-type: none"> <i><u>Total components inspected and % leaking</u></i>
<ul style="list-style-type: none"> <i><u>Description of training standards for personnel that inspect and repair components</u></i> 	<ul style="list-style-type: none"> <i><u>Critical or essential component(s) method to minimize</u></i>

Information on this slide is reflective of the 2023 Rule Amendments. To learn more , click here.



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

Changes that took effect June 15, 2023:

Operator Management Plans shall be submitted every year whether there are changes or not.

The following exemption has been removed from Rule 4409:

One-half inch nominal or less stainless steel tube fittings.

Changes that take effect on and after July 1, 2024:

Operators shall conduct quarterly inspections rather than annual.

The number of allowable leaks listed in [Table 4](#) takes effect. For 200 or less components, 5 leaks are allowed from 500 to 10,000 ppmv and 2 from >10,000 to 50,000 ppmv. For more than 200 components, leaks are allowed up to 2% for 500 to 10,000 ppmv and 1% for >10,000 to 50,000 ppmv.

Gas leak thresholds listed in [Table 2](#) take effect. Minor gas leak threshold becomes 500 ppm for components other than PRDs.

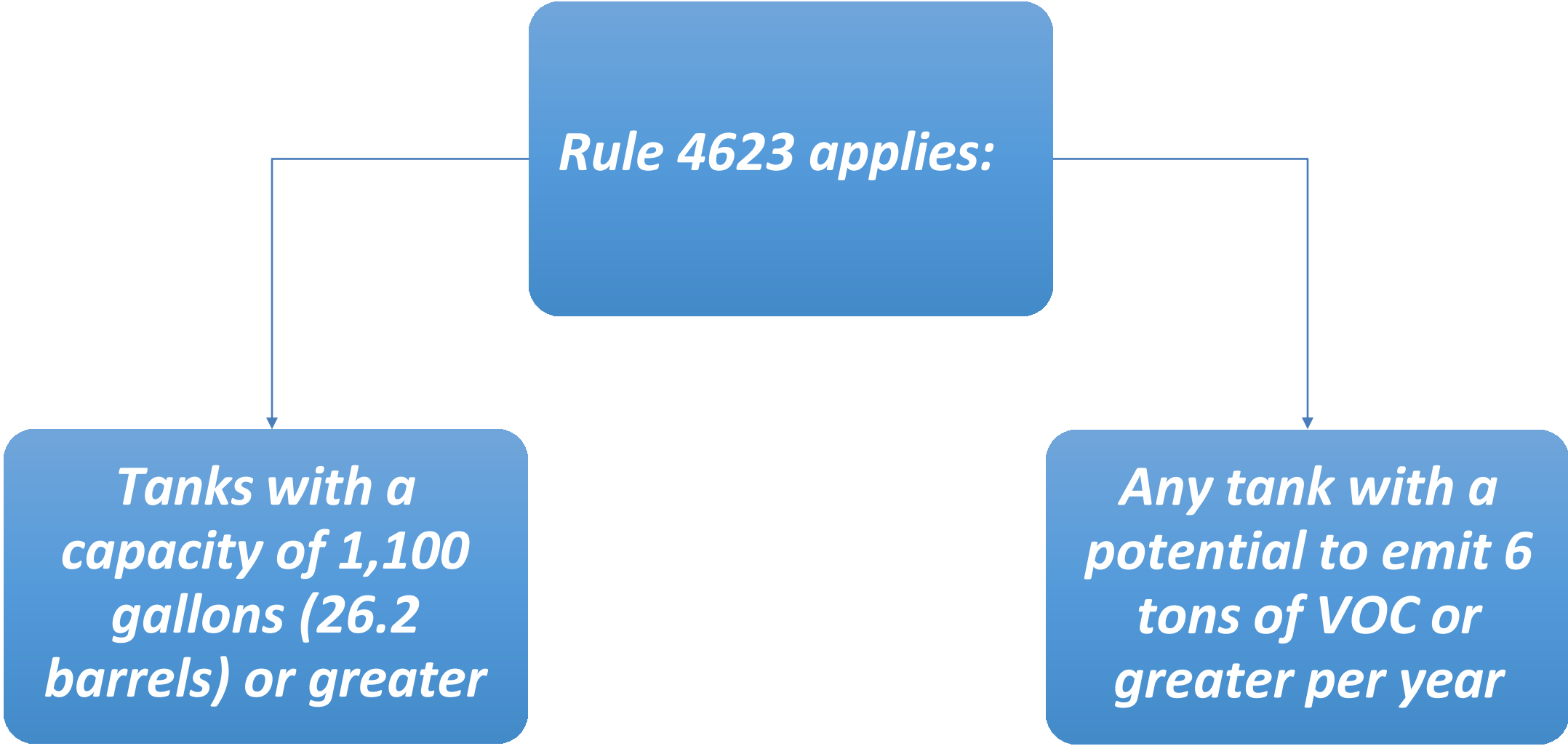
All leaks detected with OGI are to be measured using EPA Method 21 within 2 calendar days of initial OGI detection or within 14 calendar days for inaccessible or unsafe to monitor components.

If a leaking component requires a rig-up operation to complete repair, an extended repair period may be granted for up to 30 calendar days from initial leak detection.

Repair periods listed in [Table 6](#) take effect. Repair period for gas leaks over 50,000 ppm, for major liquid leaks, and for minor liquid leaks becomes one day.



Rule 4623
Storage of Organic Liquids



[Control Types](#)

[District Inspection](#)

[Operator Inspection](#)

[Administrative Requirements](#)

[Exemptions](#)

[Rule Amendments](#)



Rule 4623
Storage of Organic Liquids
Exemptions

Exemptions	
Except for complying with Sections 6.3.2, 6.3.3, and 7.1, the requirements of this rule shall not apply to:	Except for complying with Sections 5.7.5, 6.2, 6.3.6, 6.4, and 7.0, the requirements of this rule shall not apply to:
<ul style="list-style-type: none"> Emergency standby tanks, in existence prior to May 1, 1979, which exclusively store petroleum or crude oil, as specified in Section 4.2.1. 	<ul style="list-style-type: none"> Until June 30, 2024, tanks exclusively receiving and/or storing an organic liquid with a TVP less than 0.5 psia.
<ul style="list-style-type: none"> Temporary tanks, with capacities of 21,000 gallons (500 barrels) or less, left on site for six months or less. 	<ul style="list-style-type: none"> On July 1, 2024, tanks exclusively receiving and/or storing an organic liquid with a TVP less than 0.1 psia.
<ul style="list-style-type: none"> Pressure Vessels 	
<ul style="list-style-type: none"> Gasoline storage tanks with a capacity of less than 19,800 gallons that are subject to Rule 4621 - Gasoline Transfer into Stationary Storage Containers, Delivery Vessels, and Bulk Plants. 	
<ul style="list-style-type: none"> Tanks that are used for storage/processing clean produced water unless the tank has a potential to emit six tons of VOC emissions of greater per year and is used in crude oil and natural gas production operations 	
<ul style="list-style-type: none"> Tanks used in wine fermentation and for storage of resulting products, by-products, and spirits. 	
<ul style="list-style-type: none"> Except for complying with Sections 6.3.4 and 7.1, a small producer's tank with a throughput of 50 barrels of crude oil per day or less is exempt. All other small producer tanks that do not qualify for exemption under Section 4.4 shall comply with all the requirements of this rule. 	

Components and Equipment that are exempt from District Rules may still be subject to the California Oil and Gas Regulation(COGR). To learn more, click here.

Information on this slide is reflective of the 2023 Rule Amendments .To learn more, click here.



Rule 4623
Storage of Organic Liquids
Control Type Applicability

The operation produces an average of less than 6,000 barrels per day within the county and does not engage in refining, transportation, or marketing of refined petroleum products.

The operation produces an average of more than 6,000 barrels per day within the county or does engage in refining, transportation, or marketing of refined petroleum products.



Maximum tank capacity in gallons (bbl)

1,100 to 19,800

(26.2 to 471.4)

19,800 to 39,600

(471.4 to 942.9)

> 39,600

(> 942.9)

[Return To Control Types](#)



**1,100 to 19,800
gallons
(26.2 to 471.4
barrels)**

**TVP of the
organic liquid
stored**

**0.1 psia to <0.5
psia**

**0.5 psia to <1.5
psia**

**1.5 psia to <11
psia**

>11.0 psia

Return To Control Types



0.1 psia to <0.5 psia

*Tank must be
or be
equipped with
one of the
following*

*Pressure-Vacuum
Relief Valve*

*Internal
Floating Roof or
External
Floating Roof*

*Vapor Recovery
System*

[Return To Control Types](#)



0.5 psia to <1.5 psia

*Tank must be
or be
equipped with
one of the
following*

*Pressure-Vacuum
Relief Valve*

*Internal
Floating Roof or
External
Floating Roof*

*Vapor Recovery
System*

[Return To Control Types](#)



1.5 psia to <11 psia

***Tank must be
or be
equipped with
one of the
following***

***Pressure-Vacuum
Relief Valve***

***Internal
Floating Roof or
External
Floating Roof***

***Vapor Recovery
System***

[Return To Control Types](#)



>11 psia

***Tank must be
or be
equipped with
one of the
following***

***Pressure
Vessel***

***Vapor Recovery
System***

[Return To Control Types](#)



**>19,800 to 39,600
gallons (471.4 to
942.9 barrels)**

***TVP of the
organic liquid
stored***

**0.1 psia to <0.5
psia**

**0.5 psia to <1.5
psia**

**1.5 psia to <11
psia**

>11.0 psia

[Return To Control Types](#)



0.1 psia to <0.5 psia

Tank must be or be equipped with one of the following

Pressure-Vacuum Relief Valve

Internal Floating Roof or External Floating Roof

Vapor Recovery System

[Return To Control Types](#)



0.5 psia to <1.5 psia

*Tank must be
or be
equipped with
one of the
following*

*Pressure-Vacuum
Relief Valve*

*Internal
Floating Roof or
External
Floating Roof*

*Vapor Recovery
System*

[Return To Control Types](#)



1.5 psia to <11 psia

*Tank must be
or be
equipped with
one of the
following*

*Pressure-Vacuum
Relief Valve*

*Internal
Floating Roof or
External
Floating Roof*

*Vapor Recovery
System*

[Return To Control Types](#)



>11 psia

***Tank must be
or be
equipped with
one of the
following***

***Pressure
Vessel***

***Vapor Recovery
System***

[Return To Control Types](#)



**>39,600 gallons
(> 942.9 barrels)**

***TVP of the
organic liquid
stored***

**0.1 psia to <0.5
psia**

**0.5 psia to <1.5
psia**

**1.5 psia to <11
psia**

>11.0 psia

[Return To Control Types](#)



0.1 psia to <0.5 psia

*Tank must be
or be
equipped with
one of the
following*

*Pressure-Vacuum
Relief Valve*

*Internal
Floating Roof or
External
Floating Roof*

*Vapor Recovery
System*

[Return To Control Types](#)



0.5 psia to <1.5 psia

*Tank must be
or be
equipped with
one of the
following*

*Pressure-Vacuum
Relief Valve*

*Internal
Floating Roof or
External
Floating Roof*

*Vapor Recovery
System*

[Return To Control Types](#)



1.5 psia to <11 psia

Tank must be or be equipped with one of the following

Pressure-Vacuum Relief Valve

Internal Floating Roof or External Floating Roof

Vapor Recovery System

[Return To Control Types](#)



>11 psia

***Tank must be
or be
equipped with
one of the
following***

***Pressure
Vessel***

***Vapor Recovery
System***

[Return To Control Types](#)



Small Producer Control Types

0.1 psia to 11 psia and a tank throughput of >50 to 150 barrels crude oil per day

0.1 psia to 0.5 psia and a tank throughput 150 barrels of crude oil per day

0.5 psia to 11 psia and a tank throughput 150 barrels of crude oil per day

11 psia and regardless of crude oil tank throughput

Return To Control Types



*0.1 psia to 11 psia
and a tank
throughput of
>50 to 150 barrels
of crude oil per day*

*Tanks 1,100
gallons (26.2
barrels) to 39,600
gallons (942.9
barrels)*

*Pressure-
Vacuum Relief
Valve*

*Internal Floating
Roof or External
Floating Roof*

*Vapor Recovery
System*

*Tanks 39,600
gallons
(942.9
barrels) or
greater*

*Pressure-
Vacuum Relief
Valve*

*Internal Floating
Roof or External
Floating Roof*

*Vapor Recovery
System*

[Return To Control Types](#)



0.1 psia to 0.5 psia and a tank throughput 150 barrels of crude oil per day

Tanks 1,100 gallons (26.2 barrels) to 39,600 gallons (942.9 barrels)

Pressure-Vacuum Relief Valve

Internal Floating Roof or External Floating Roof

Vapor Recovery System

Tanks 39,600 gallons (942.9 barrels) or greater

Pressure-Vacuum Relief Valve

Internal Floating Roof or External Floating Roof

Vapor Recovery System

[Return To Control Types](#)



0.5 psia to 11 psia and a tank throughput 150 barrels of crude oil per day

Tanks 1,100 gallons (26.2 barrels) to 39,600 gallons (942.9 barrels)

Pressure-Vacuum Relief Valve

Internal Floating Roof or External Floating Roof

Vapor Recovery System

Tanks 39,600 gallons (942.9 barrels) or greater

Pressure-Vacuum Relief Valve

Vapor Recovery System

[Return To Control Types](#)



*11 psia and
regardless of
crude oil tank
throughput*

*Tanks 1,100
gallons (26.2
barrels) to 39,600
gallons (942.9
barrels)*

*Pressure-
Vacuum Relief
Valve*

*Vapor Recovery
System*

*Tanks 39,600
gallons
(942.9
barrels) or
greater*

*Pressure-
Vacuum Relief
Valve*

*Vapor Recovery
System*

[Return To Control Types](#)



Rule 4623
Storage of Organic Liquids
District Inspection

An operator shall be in violation of this rule if any District inspection demonstrates that one or more of the following exist

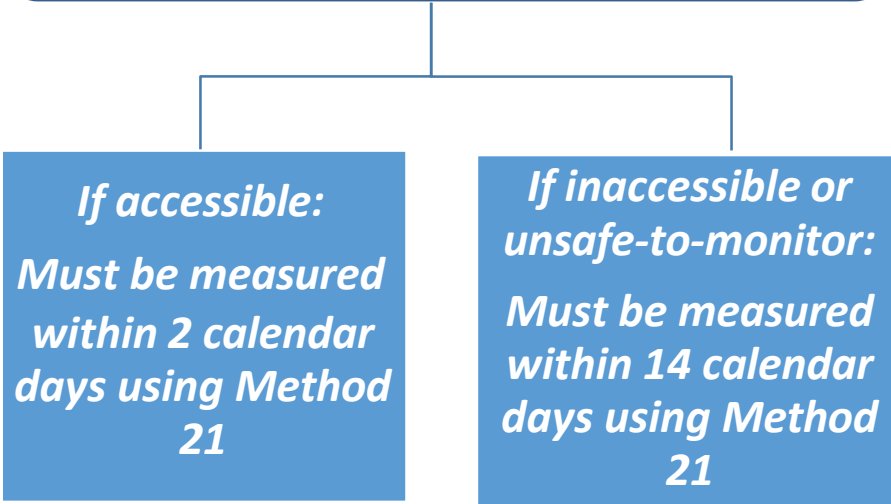
- Major Liquid Leak
- Gas Leak Greater Than 10,000ppmv
- Exceeding the allowable number of leaks
- Failure to repair within the timeframe of Table 9

Method 21 Inspection

Upon discovery, an operator shall minimize a component leak no later than one (1) hour after detection.

The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the repair period in Table 9

Per Section 6.4.8.1 leaks detected with Optical Gas Imaging



Component Types

Component Categories

Information on this slide is reflective of the 2023 Rule Amendments. To learn more, click here.



Rule 4623
Storage of Organic Liquids
Operator Inspection

Required Quarterly

Method 21 Inspection Required

Per Section 6.4.8.1 leaks detected with Optical Gas Imaging

*If accessible:
 Must be measured within 2 calendar days using Method 21*

*If inaccessible or unsafe-to-monitor:
 Must be measured within 14 calendar days using Method 21*

Component Types

Component Categories

During Operator inspections leaks discovered do not constitute violations so long as they are repaired within the timeframes of Table 9.

Failure to repair leaks within timeframes specified in Table 9

The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the repair period in Table 9

Upon discovery, an operator shall minimize a component leak no later than one (1) hour after detection.

Other Inspection Requirements

External floating roof tanks shall be inspected once every 12 months as required by Section 6.1.3.

Internal floating roof tank primary and secondary seals shall have gap measurements performed once every 60 months and shall be visually inspected once every 12 months as required by Section 6.1.4.

Inaccessible components, unsafe-to-monitor components and floating roof tanks including their deck fittings and components shall be inspected annually instead of quarterly.

Information on this slide is reflective of the 2023 Rule Amendments. To learn more, click here.



Rule 4623
Storage of Organic Liquids
Administrative Requirements

Floating Roof Tank Inspections	TVP Testing	LDAR Inspection Log Requirements
<ul style="list-style-type: none"> The operator of external floating roof tanks shall make the primary seal envelope available for unobstructed inspection by the APCO on an annual basis. 	<ul style="list-style-type: none"> An operator shall conduct TVP and API testing upstream of each separator and fixed roof tank not controlled by a vapor control system. 	<ul style="list-style-type: none"> Total number of components inspected and total number and percentage of leaking components. Description of leaking component as well as date of discovery, repair, and re-inspection.
	<ul style="list-style-type: none"> A representative tank must also store the same organic liquid as the represented tanks and have the same or higher TVP and storage temperature. 	<ul style="list-style-type: none"> Records maintained of calibration of portable hydrocarbon detection instrument. Responsible operator shall also sign inspection logs. For gas leaks, record the concentration in ppmv, for liquid leaks record the volume. For all leaks, record method of leak detection.
<ul style="list-style-type: none"> Operators of floating roof tanks shall submit a tank inspection plan as specified in Section 6.1.2 for approval. 	<ul style="list-style-type: none"> TVP testing is to be conducted during the months of June through September and is to happen at least once every 24 months. 	<ul style="list-style-type: none"> An operator who is demonstrating that their tank PTE emissions are below 6 tons of VOC per year or actual emissions are below 4 tons shall keep an accurate record of each organic liquid stored in each tank, including storage temperature, TVP, and monthly throughput.
	<ul style="list-style-type: none"> An operator may conduct a TVP test of a representative fixed roof tank, given it is the front line tank receiving produced fluids. 	<ul style="list-style-type: none"> On July 1, 2024, all leaks detected with the use of an Optical Gas Imaging instrument shall be measured using Method 21 within 2 calendar days of initial detection or within 14 calendar days of an inaccessible or unsafe to monitor component to determine compliance with the leak thresholds and repair timeframes specified in Table 9.

Information on this slide is reflective of the 2023 Rule Amendments. To learn more, click here.



Rule 4623
Storage of Organic Liquids
Leak Description

A major gas leak is defined as a leak greater than 10,000 ppm

A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute

A minor gas leak is defined as a leak greater than 500 ppm and less than 10,000 ppm

Table 8 – Allowable Leaks		
Leak Threshold	200 or Less Components Inspected*	More than 200 Components Inspected*
500-10,000 ppmv	5	2% of total inspected

Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from a component into a container is not considered a leak provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere.

Information on this slide is reflective of the 2023 Rule Amendments. To learn more, [click here](#).



Rule 4623
Storage of Organic Liquids
Leak Repairs

Section 5.9.4.10 After leak minimization, a facility must comply with one of the following requirements per Table 9:

- **Repair or replace the leaking component**
- **Vent the leaking component to a VOC collection and control system**
- **Remove the leaking component from operation**

Failure to comply with one of the above may result in a violation of this Rule

**Section 5.9.3 Table 9:
 Repair Periods for
 District and Operator
 Discovered Leaks**

Table 9 – Repair Time Periods	
Leak Threshold	Repair Time Period
Minor Leak	14 Calendar Days
Major Leak	2 Calendar Days
Liquid Leak	2 Calendar Days

Information on this slide is reflective of the 2023 Rule Amendments. To learn more, click here.



Rule 4623
Storage of Organic Liquids
Rule Amendment Summary

**Changes that took effect
 June 15, 2023:**

Operators shall maintain an inspection log according to the specifications in Section 6.3.9.

*Tanks holding clean produced water, but that have the **potential to emit 6 tons of VOC or greater per year are now subject**. Tanks that have a potential to emit that exceed that limit must have a vapor control system installed.*

*To demonstrate that a tank's **potential to emit is below 6 tons of VOC per year or actual emissions are below 4 tons of VOC per year**, an operator must maintain record of each organic liquid stored in the tank, the storage temperature, TVP, and monthly throughput.*

Changes that take effect on and after July 1st,

A leak discovered during operator and district inspections above the leak threshold shall be repaired within the timeframes of Table 9.

Gas leak thresholds listed in Table 2 take effect. Minor gas leak threshold is 500 to 10,000 ppm and major gas leaks are >10,000 ppm.

All leaks detected with Optical Gas Imaging are to be measured using EPA Method 21 within 2 calendar days of initial Optical Gas Imaging detection or within 14 calendar days for inaccessible or unsafe to monitor components.

Operators shall follow the storage tank degassing and interior cleaning requirements listed in Section 5.7.5. The voluntary inspection and maintenance program will end for fixed roof tanks.

The general VOC control system requirements listed in Table 4 take effect. This table introduces new requirements for tanks holding organic liquids with a TVP from 0.1 to 0.5 psia.

At least once each calendar quarter all components are to be inspected except for inaccessible components, unsafe to monitor components, and floating roof tanks including their deck fittings and components as specified in Section 5.9.4.

The small producer VOC control system requirements listed in Table 6 take effect. This table introduces new requirements for small producer tanks holding organic liquids with a TVP from 0.1 to 0.5 psia.

Notices of Violation are issued for leaks >10,000 ppm, liquid leaks, exceeding the allowable number of minor leaks, and failing to repair leaks within the required timeframe of Table 6.

ATC requirement by March 31, 2024

Per Section 7, Table 10 tanks are required to comply with Sections 5.1.1.1, 5.1.2.1, or required to install a pressure-vacuum relief valve must submit an Authority to Construct by March 31, 2024.



Rule 4624
Transfer of Organic Liquid

**Rule 4624
applies**



***Class 1 Organic Liquid
Transfer Facility: any location
transferring 20,000 gallons or
more on any one day or
organic liquids with a TVP of
1.5 psia or greater to or from
tank trucks, trailers, or
railroad tank cars***



***Class 2 Organic Liquid Transfer
Facility: any location
transferring 4,000 gallons or
more but less than 20,000
gallons on any one day of
organic liquids with a TVP of
1.5 psia or greater to or from
tank trucks, trailers, or railroad
tank cars***

[District Inspection](#)

[Operator Inspection](#)

[Administrative
Requirements](#)

[Exemptions](#)

[Rule Amendments](#)



Rule 4624
Transfer of Organic Liquid
Exemptions

Exemptions
<ul style="list-style-type: none">• Facilities which transfer < 4000 gallons of organic liquids daily
<ul style="list-style-type: none">• Transfer operations subject to the requirements of Rule 4621 - Gasoline Transfer Into Stationary Storage Containers, Delivery Vessels, And Bulk Plants
<ul style="list-style-type: none">• Transfer operations that are subject to Rule 4622 - Gasoline Transfer Into Motor Vehicle Fuel Tanks
<ul style="list-style-type: none">• Transfer of organic liquids with TVP less than 1.5 psia at the storage container's maximum organic liquid storage temperature
<ul style="list-style-type: none">• Components subject to Rules: 4409, 4623, 4455 - Components At Petroleum Refineries, Gas Liquids Processing Facilities, And Chemical Plants
<ul style="list-style-type: none">• Transfer operations involving vacuum trucks

Components and Equipment that are exempt from District Rules may still be subject to the California Oil and Gas Regulation(COGR). To learn more, click here.

Information on this slide is reflective of the 2023 Rule Amendments. To learn more , click here.



Rule 4624
Transfer of Organic Liquid
Definitions

Organic Liquid Loading Operation

The transfer of organic liquid to a tank truck, trailer, or railroad car

Organic Liquid Transfer Facility

Any aggregate or combination of transfer racks and vapor control equipment at a location, including, but not limited to, the stationary organic liquid pump, and the hose end connector, and the discharge of the vapor control device(s)

Organic Liquid

Any liquid which contains VOCs and has a TVP of 1.5 psia or greater at the storage container's maximum organic liquid storage temperature.

Clean produced water, as defined by Rule 1020, and other types of liquids that contain no more than 35 milligrams of VOC per liter, shall not be considered to be an organic liquid



Rule 4624
Transfer Of Organic Liquid
District Inspection

An operator shall be in violation of this rule if any District inspection demonstrates that one or more of the following exist

- Major non-gasoline leak greater than 1,000ppmv
- Gasoline leak greater than 10,000ppmv
- Exceeding the allowable number of leaks
- Failure to repair within the timeframes of Table 3
- More than 3 drops per minute

Method 21 Inspection

Upon discovery, an operator shall minimize a component leak no later than one (1) hour after detection.

The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the repair period in Table 3

Per Section 6.3.8.1 leaks detected with Optical Gas Imaging

*If accessible:
 Must be measured within 2 calendar days using Method 21*

*If inaccessible or unsafe-to-monitor:
 Must be measured within 14 calendar days using Method 21*

Component Types

Component Categories

Information on this slide is reflective of the 2023 Rule Amendments. To learn more , click here.



Rule 4624
Transfer Of Organic Liquid
Operator Inspection

An operator shall be in violation of this rule if any operator inspection demonstrates that one or more of the following exist

[Failure to repair within the timeframes of Table 3](#)

Required Quarterly

[Method 21 Inspection](#)

Upon discovery, an operator shall minimize a component leak no later than one (1) hour after detection.

[The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the repair period in Table 3](#)

Per Section 6.3.8.1 leaks detected with Optical Gas Imaging

*If accessible:
Must be measured within 2 calendar days using Method 21*

*If inaccessible or unsafe-to-monitor:
Must be measured within 14 calendar days using Method 21*

[Component Types](#)

[Component Categories](#)

Information on this slide is reflective of the 2023 Rule Amendments. To learn more , click here.



Rule 4624
Transfer Of Organic Liquid
Leak Description

Major Non-Gasoline leaks greater than 1,000ppmv

Leaks more than 3 drops per minute

Minor gas leaks 500ppmv to less than 1,000ppmv

Gasoline Leak greater than 10,000ppmv

Table 1 Leak in ppmv as Methane (Until June 30, 2024)

	Leak
Component	1,000 and greater

Table 2 Leak in ppmv as Methane (After June 30, 2024)

	Major Leak	Minor Leak
Component	1,000 and greater	500 to less than 1,000

Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from a component into a container is not considered a leak provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere.

Information on this slide is reflective of the 2023 Rule Amendments. To learn more , click here.



Rule 4624
Transfer Of Organic Liquid
Leak Minimization

Section 5.9.3 After leak minimization, a facility must comply with one of the following requirements per Table 3:

- **[Repair or replace the leaking component](#)**
- **[Remove the leaking component from operation](#)**

Failure to comply with one of the above is a **violation** of this Rule

Table 3 Repair Periods	
Type of Leak	Repair Time Period
Liquid Leak	72 hours
Gas Leak	72 hours



Rule 4624
Transfer Of Organic Liquid
Exceeding the Number of Allowable Leaks

Table 4 – Number of Allowable Leaks after June 30, 2024	
Minor leaks	2.0% of components inspected
Major leaks	0

Information on this slide is reflective of the 2023 Rule Amendments. To learn more , click here.



Rule 4624
Transfer Of Organic Liquid
Administrative Requirements

TVP and Throughput Records	LDAR Inspection Log Requirements
<ul style="list-style-type: none"> Records of daily liquid throughput 	<ul style="list-style-type: none"> Total components inspected and % leaking
<ul style="list-style-type: none"> Maintain accurate daily records of liquid TVP 	<ul style="list-style-type: none"> Date, time, location, and concentration of leak
<ul style="list-style-type: none"> Results of any required leak inspections 	<ul style="list-style-type: none"> Date of repair, replacement, removal from operation
<ul style="list-style-type: none"> Records shall be retained for a minimum of five years 	<ul style="list-style-type: none"> Date of re-inspection and concentration
	<ul style="list-style-type: none"> Critical or essential component(s) method to minimize

Information on this slide is reflective of the 2023 Rule Amendments. To learn more , click here.



Rule 4624
Transfer Of Organic Liquid
Rule Amendment Summary

Changes that take effect on and after July 1st, 2024:

Operators shall conduct quarterly inspections rather than annual.

Gas leak thresholds listed in [Table 2](#) take effect. Minor gas leak threshold is 500 to 1,000 ppm.

Operators shall maintain an inspection log according to the requirements listed in Section 5.10.

The number of allowable leaks as listed in [Table 4](#) takes effect. For minor leaks, facilities are allowed 2.0% of the number of inspected components and are allowed 0 major leaks.

All leaks detected with Optical Gas Imaging are to be measured using EPA Method 21 within 2 calendar days of detection or within 14 calendar days for inaccessible or unsafe to monitor components

Operators shall affix a tag to leaking components and follow the maintenance requirements as specified in Section 5.10.



Components

Component:

includes, but is not limited to, any one (1) of the following groups: valves, fittings, threaded connections, pumps, compressors, pressure relief devices, pipes, polished rod stuffing boxes, flanges, process drains, sealing mechanisms, hatches, sight-glasses, meters, or seal fluid systems in VOC service.





Component Category for Maintenance and Inspection Schedules

Component Category	Definition	Rule-Specific Requirements
<i>Unsafe-to-monitor Component:</i>	<i>Component installed at a location that would prevent the safe inspection or repair of a component as defined by OSHA Standards or in provisions for worker safety stated in CFR 1910.</i>	<ul style="list-style-type: none"> <i>Rule 4409: For all Component Subcategory: Repair as soon as practical, but no later than the next turnaround or 2 years after the 5th major leak within 12 months (which comes first)</i>
<i>Essential Component:</i>	<i>A component that cannot be taken out of service without reducing, by more than 33 percent, the throughput of the process unit that it serves</i>	<ul style="list-style-type: none"> <i>Rule 4401: For Critical and Essential components only: minimize leak if possible and repair during next process unit turnaround, in no case later than one year from leak detection date</i>
<i>Inaccessible Component:</i>	<i>A component that is located over 15 feet above ground when access is required from the ground; or a component that is located over six (6) feet away from a platform when access is required from the platform, or a component in a location that would require the elevation of monitoring personnel higher than six (6) feet above permanent support surfaces</i>	<ul style="list-style-type: none"> <i>Rule 4401: For Unsafe-to-monitor components only: Quarterly inspection not required. Inspect at turnaround instead.</i>
<i>Critical Component:</i>	<i>Any component that would require the shutdown of a critical process unit if that component was shut down or disabled.</i>	<ul style="list-style-type: none"> <i>Rule 4623: For unsafe-to-monitor and Inaccessible components only: annual inspection instead of quarterly inspection is required</i> <i>OGI Findings: For all Rules, discovered on inaccessible and unsafe-to-monitor components only, measure with a Method 21 approved instrument within 14 days</i>



EPA Method 21



District staff and operators are to:

- *Conduct inspections using EPA Method 21 approved equipment*
- *Calibrate the equipment per EPA Method 21 standards*
- *Inspection components per EPA Method 21 standards*

Optical Gas Imaging:

An instrument that makes emissions visible that may otherwise be invisible to the naked eye

All leaks detected with the use of an Optical Gas Imaging instrument shall be measured using EPA Method 21

https://www.epa.gov/sites/default/files/2017-08/documents/method_21.pdf



Who is Subject

1) Onshore and offshore crude oil or natural gas production

2) Crude oil, condensate, and produced water separation and storage

3) Natural gas underground storage

4) Natural gas gathering and boosting stations

5) Natural gas gathering and boosting stations

6) Natural gas transmission compressor stations

Where to find out more

<https://ww2.arb.ca.gov/resources/documents/oil-and-gas-regulation>

Information about CARBs Oil and Gas Regulation

<https://ww2.arb.ca.gov/rulemaking/2023/oil-and-gas-2023>