San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING

Frequently Asked Questions Regarding Rule 2260, Registration Requirements for Equipment Subject to California's Oil and Gas Regulation

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Rule 2260 can be found www.valleyair.org/rules/currntrules/r2260.pdf and the state regulation can be found http://www.arb.ca.gov/regact/2016/oilandgas2016/oilandgas2016.htm

Q1: When is the application required to be submitted to register equipment subject to the state regulation?

Answer: Applications to register equipment subject to the state regulation are due to the District by March 1, 2018.

Q2: When is the initial inventory of equipment specified in Rule 2260 Section 8.1 required to be submitted? When are the annual updates to the inventory required?

Answer: Rule 2260 Section 8.1 specifies that this initial CARB data inventory be submitted by March 1, 2018, to the extent required by CARB. In late November 2017 CARB indicated that the inventory of all equipment covered by the rule was being postponed until July 1, 2018. With this direction from CARB, the CARB data inventory required by Rule 2260 Section 8.1 is required to be submitted by July 1, 2018. Annual updates to this inventory as required in Rule 2260 Section 8.2 are required by March 1 thereafter.

Q3: Where do I send the results of the testing required by the state regulation?

Answer: Pursuant to Rule 2260 Section 5.10, all reporting required by the state regulation must be submitted to CARB. CARB is investing significantly in automating the required reporting, and combining such reporting with their existing Greenhouse Gas Mandatory Reporting system. The District will have access to records submitted to CARB as needed.

Q4: What equipment is subject to leak detection and repair (LDAR) requirements in the state regulation?

Answer: The LDAR requirements in the state regulation (Section 95669) apply to all equipment at facilities specified in the regulation, unless explicitly exempt from LDAR requirements. This includes equipment at facilities for which there is not a specified "Standard" in the state regulation (Section 95668).

Q5: Are existing separator and tank systems, with or without vapor control, required to perform leak detection and repair by the state regulation?

Answer: Yes. All operators of equipment at facilities covered by the state regulation are required to perform leak detection and repair unless specifically exempted in the state regulation at Section 95669 (b). These exemptions include, but are not limited to, components used for production of crude oil with an API gravity less than 20° (averaged on an annual basis), and components already subject to local air district leak detection and repair requirements including actively participating in the Voluntary Tank

Inspection and Maintenance Program as specified in Section 5.7 of District Rule 4623 as of January 1, 2018.

Q6: Section 95669 (b)(1) of the state regulation provides an exemption from state LDAR requirements for those components subject to District LDAR requirements. Does this exemption extend to LDAR requirements from other agencies such as EPA?

Answer: No. CARB has explicitly limited the LDAR exemption to, "…local air district leak detection and repair requirements if the requirements were in place prior to January 1, 2018." Therefore, unless LDAR inspections are specifically required by District rules, including the District's New Source Review regulation (2201) and specified by permit condition, the CARB quarterly LDAR inspections must take place. In other words, inspections required by other non-District agency programs do not provide exemption from CARB LDAR.

Q7: Is there a process whereby a facility can voluntarily subject their equipment or processes to the LDAR requirements in District Rules after 1/1/18 to avoid the LDAR requirements in the CARB regulation?

Answer: No. Section 95669 (b)(1) states that the LDAR exemption only applies if the equipment or processes were already subject to District LDAR requirements as of January 1, 2018. There are no provisions to opt in to District LDAR after 1/1/18 for existing equipment and processes.

Q8: If an operation becomes subject to a District LDAR requirements through a process change or equipment modification, would the operation become exempt from CARB LDAR.

Answer: Yes. That part of the operation would then be subject to the District program and would not be required to perform the CARB LDAR.

Q9: Is equipment that is exempt from facility-conducted inspections (pursuant to Rule 4401 section 4.7) subject to Section 95669 (LDAR) requirements?

Answer: Yes. Equipment is subject to Section 95669 (LDAR) unless it is specifically exempt. Section 95669 (b)(1) provides exemption for equipment subject to local LDAR requirements as of January 1, 2018. Equipment that is exempt from the facility conducted inspections of Rule 4401 (per Rule 4401 Section 4.7) is subject to Section 95669 (LDAR).

Q10: Which leak-repair timelines and leak definitions apply if equipment is exempt from District Rule 4401 self-inspections, but is subject to Section 95669 (LDAR)?

Answer: The leak-repair timelines and leak definitions in Rule 4401 apply. Section 4.7 of District Rule 4401 provides exemption from self-inspection for components handling casing gas with less than 10% by weight VOC. The exemption is limited only to the requirements in Sections 5.4.1 through 5.4.6 of the rule (inspection and re-inspection requirements), and does not provide relief from leak repair times. In other words, the Rule 4401 Section 4.7 exemption allows companies with components handling low VOC content gasses relief from having to conduct leak-checks otherwise required by Rule 4401. But if a leak is found it must be repaired within the timeframes specified in the District Rule. The leak definitions found in Rule 4401 also apply.

Further, because components handling low VOC content gasses are exempt from District self-inspection, these components are subject to the CARB LDAR. This means that the equipment mentioned above must be inspected quarterly per the CARB regulation, but must meet the leak definitions and repair timelines in District Rule 4401.

Please note that on January 1, 2020, the gas leak threshold in the COGR Regulation will drop to 1,000 ppm, which is lower than that in District Rule 4401 for most components. Leaks discovered after this

date above the COGR threshold and below the 4401 threshold must meet the repair timelines in the CARB regulation.

Q11: Section 95669 (b)(2) (LDAR) provides an exemption for components, including components found on tanks, separators, and pressure vessels used exclusively for heavy crude oil (<20° API Gravity). Does this mean that a facility producing heavy crude oil is exempt from LDAR?

Answer: No. Section 95669(b)(2) of the Oil & Gas Methane Regulation exempts only components, not facilities, that are "used exclusively for crude oil with an API Gravity less than 20 averaged on an annual basis." This exemption applies to both the crude oil components and the produced water components. It also applies to any components on a crude oil tank or produced water tank, such as a pressure relief valve or pressure vacuum valve. In other words, these oil and produced water components are not subject to LDAR.

However, this exemption does not apply to the gas components at these facilities, such as those on gas lines transporting produced gas to a sales gas system, fuel gas system, gas disposal well, flare, or other combustion device. This exemption also does not apply to the gas components at these facilities that are part of a vapor collection system and vapor control device. In other words, these gas components are subject to LDAR.

Q12: Does the Section 95669 (b)(2) exemption from LDAR apply to well casing vents not connected to a well vent collection system?

Answer: Yes. Wells producing heavy crude with an API Gravity less than 20 API averaged on an annual basis with casing vents that are closed but without gas collection systems, are not subject to LDAR.

Please note that this equipment may be subject to District Rule 4401.

Q13: Does the Section 95669 (b)(2) exemption from LDAR apply to well casing vents and components serving lines connecting the casing vent to the production stream at the well head?

Answer: Yes. For heavy crude with an API Gravity less than 20 API, and where the well vents and components are open into the production stream at the wellhead, they are exempt from CARB LDAR. This only applies to those components that duct the well casing vent gasses directly into the production line.

Please note that this equipment may be subject to District Rule 4401.

Q14: Are open well vents subject to Section 95669 (LDAR)?

Answer: No. Wells that normally operate with casing vents open are exempt from Section 95669 (LDAR) pursuant to Section 95669 (b)(11).

Please note that the gas flow rate from open well casing vents must be measured annually per Section 95668 (g)(1) and be reported to CARB per Section 95668 (g)(2). Section 95668 (g) applies to any well that normally operates or intermittently operates with open casing vents without regard to production (heavy or light crude, natural gas, and wells at gas storage facilities).

Open well casing vents are subject to the requirements of the regulation and as such, registration is required within 60 days of operating the well casing vent in an open manner.. Please note, a measurement of the flow rate is necessary to complete the registration application form. The well does not have to be maintained in the open position to be registered as an open well casing vent. If the well casing vent is operated intermittently in an open manner, during times that it is closed, it would be subject to LDAR requirements and applicable leak standards.

Q15: If a facility is conducting the quarterly LDAR inspections as required, and repairs leaks within the timeframes specified in the regulation, are they in violation if they exceed the allowable number of leaks?

Answer: No. CARB has explained in their Final Statement of Reasons document prepared with the adoption of the regulation that the intent of Section 95669 (o)(5) is that leaks found and repaired during facility-conducted inspections will not be considered a violation as long as they are repaired within the timelines specified in the regulation*. However, Section 95669 (o) specifies that facilities *will* be in violation of the leak requirements (exceeding the number of leaks allowed, or exceeding repair timelines for example) for any inspections conducted by CARB or the District.

*A more detailed explanation of the intent of Section 95669 (o)(5) may be found in consolidated response to comments F-3-4, F-8-10, F-9-3, F-14-1, and F-9-40, on page 84 of CARB's FSOR (see www.arb.ca.gov/regact/2016/oilandgas2016/ogfsor.pdf).

Q16: Section 95669 (LDAR) includes provisions for a delay in repairing leaks if the operator can provide proof that parts or equipment have been ordered to repair the leak. Does this provision for a delay of repair apply to cases where a well workover rig, or specially trained work crews, are required to repair a leak?

Answer: Yes. If a workover rig or special work crews are needed to repair the leak and it must be "scheduled", a delay of repair is allowable.

Q17: Does the alternate screening procedure described in EPA Method 21, also known as the "Bubble Test", comply with LDAR section 95669 (g)?

Answer: Yes. Per CARB, Section 95669 (g) (1), quarterly LDAR measurements *shall be tested for leaks* of total hydrocarbons in units of parts per million (ppmv) calibrated as methane is not intended to eliminate the use of the Bubble Test if performed as described in EPA Method 21. Specifically, per Section 8.3.3.1 of Method 21 the alternate screening method [Bubble Test] is not allowed where there are continuously moving parts, where the parts have temperatures above the boiling point or below the freezing point of the solution, or where the gaps between parts are so large as to prevent bridging.

Q18: Section 95668 (Standards) has requirements for Natural Gas Reciprocating Compressors and Natural Gas Centrifugal Compressors. Do these requirements apply to reciprocating or centrifugal compressors handling low quality waste gas found in well vent and tank vapor control systems?

Answer: Yes. The definition of Natural Gas in CARB Regulation (Section 95667 (30)) states that that its constituents include methane and carbon dioxide and may include may be "field quality" or "pipeline quality" gas. Waste gas recovered from well vent and tank vapor control systems is field quality (produced in an oilfield) and as such meets the definition of natural gas.

Q19: What is the process for components/processes to be designated as "critical", in accordance with the state regulation?

Answer: Requests for critical component designation are due by January 1, 2018 pursuant to the state regulation Section 95670 (a). The District will review these requests and forward an initial determination to CARB for their final approval.

Q20: Can extended repair time under Section 95670 (Critical Components) be granted for leaks found by either facility or District inspections conducted before critical components have been approved by CARB?

Answer: No. The state regulation Section 95670 (f) specifically requires that the critical component approval process must be completed before extended repair time for leaks can be granted.

Q21: Section 95670 (a) (Critical Components) allows for new equipment installed after the January 1, 2018 to be considered for critical component designation. Does this also include equipment/processes that has/have been modified?

Answer: Yes, provided the modification includes the addition of equipment or the modification of existing equipment such that components/processes now meet the definition of critical component and critical process unit in the CARB Regulation. The new/modified equipment or process will be evaluated for critical component designation as detailed above.

Q22: When the repair of a leak will require shutting in a pollution control device and will result in the release of criteria pollutants, does this affect repair times? For example, if a leak were discovered on a natural gas fuel line serving a bank of steam generators that process waste gas for tank vapor recovery or casing vapor recovery systems, and repair of the leak would require shutting in the bank of generators and could result in venting of the TVR/CVR gasses, could extended repair time be granted?

Answer: Where the repair of a methane leak would result in shutting in a control device and the release of criteria pollutants, CARB has stated that they will consider air pollution control devices as critical process units. In cases where the repair of natural gas leaks on components of air pollution control devices, such as components on fuel lines serving such devices, would result in shutting in the control processes, these components will be considered critical components per Section 95670. Such consideration only applies where the facilities have applied for, and identified the components, as required in this section.

Q23: Are monthly API gravity tests required?

Answer: Not by the CARB regulation. Determining the applicability of the gravity based LDAR exemption in Section 95669 (b)(2), shall be based on the gravity as reported on the DOGGR website. Reports should be submitted as required by DOGGR, but no separate reporting is required by the CARB regulation.

Q24: Section 95669 (e) requires either daily or weekly audio-visual inspections. What records are required?

Answer: If the audio-visual inspections are written in a standardized work practices document, then specific records of each daily or weekly records are not required. However, records are required upon detection of an audio-visual leak that is not repaired within 24 hours of detection. These leaks shall be quantified using Method 21 and repaired according to Section 95669 (h) or (i). The inspection date, component type leaking, the leak concentration, leak repair date, and leak concentration after repair shall be recorded and reported using Appendix Table A5 in the regulation, or via CARB's upcoming web-based reporting tool.

Q25: Are casing leaks coming up from around the outside of the casing exempt by virtue of being "components buried below ground" in Section 95669 (b)(5)?

Answer: No. The casing or a portion thereof, is available for inspection and is not considered a buried component. Components that are not available for inspection such as buried pipelines are exempt. The casing is a pipe (one of the components defined in Section 95667 (a)(9)), it carries the gasses subject to the regulation and, therefore, the leaks must be repaired according to the rule requirements. If meeting the leak repair timelines will be difficult or impossible, contact the District's Compliance Department to discuss the issue as soon as possible.

Q26: Are produced water tanks serving light oil production (20° API gravity and above) subject to LDAR Section 95669?

Answer: Yes, light oil production equipment, including that serving the water side, is subject until the water is disposed, recycled, and/or reinjected.

Q27: Are sumps subject to LDAR?

Answer: No. An uncovered sump is not a component as defined in Section 95667 (a)(9) and the sump inlet pipe is not considered an open-ended line as described in Section 95669 (m). The same applies to open-topped tanks.

Q28: Does Section 95666 (a)(2) cover petroleum pipeline stations?

Answer: No. As petroleum pipeline stations are not used for "separation and storage", the State regulation is not applicable.

Q29: What standards must reciprocating/centrifugal compressors meet?

Answer: Components associated with reciprocating and centrifugal compressors are generally subject to the LDAR standards in section 95669, unless specifically exempted. However, the standards for rod packing/seal vent(s) associated with reciprocating compressors and wet seal vent(s) associated with centrifugal compressors are a bit more complex, as described below. These requirements have been effective since at least January 1, 2019.

- For reciprocating compressors at oil and gas production facilities, operators must either duct the rod packing/seal vent(s) to a vapor collection system or comply with the leak standards in section 95669. If utilizing the latter option, operators must correct any exceedances of the applicable leak standards within 30 days (i.e., the repair times in in § 95669 do not apply), with the possibility of a delay of repair as warranted and approved by the District.
- For reciprocating compressors at all remaining affected facilities listed in section 95666, operators must measure the rod packing/seal vent flow rate annually and comply with a 2 scfm flow rate limit (or a combined flow rate limit of 2 scfm multiplied by the number of compression cylinders) *or* duct the rod packing/seal vent(s) to a vapor collection system. If utilizing the former option, operators must correct any exceedances of the flow rate limit within 30 days, with the possibility of a delay of repair as warranted and approved by the District.
- For centrifugal compressors with wet seals at all affected facilities listed in section 95666, operators must measure the wet seal vent flow rate annually and comply with a 3 scfm flow rate limit (or a combined flow rate limit of 3 scfm multiplied by the number of wet seals) *or* duct the wet seal vent(s) to a vapor collection system. If utilizing the former option, operators must correct any exceedances of the flow rate limit within 30 days, with the possibility of a delay of repair as warranted and approved by the District.

Q30: What standards must natural gas–powered pneumatically actuated valves and pumps meet?

Answer:

- Continuous-bleed valves must not vent natural gas to atmosphere and must comply with the LDAR requirements in section 95669, both while idle and while actuating (i.e., must comply with both the applicable leak standards and repair times). New/replacement continuous-bleed valves must be ducted to a vapor collection system or operated on instrument air or electricity.
    - Continuous-bleed valves installed prior to 1/1/2016 are exempt from the aforementioned "no venting" requirement and LDAR standards, provided that the flow rate while idle is ≤6 scfh (no limit while actuating). Flow rate must be measured annually. Any exceedances of the flow rate limit must be corrected within 14 days.