

VENTURA COUNTY APCD

DRAFT STAFF REPORT

PROPOSED AMENDMENTS TO RULE 74.10, COMPONENTS AT CRUDE OIL AND NATURAL GAS PRODUCTION FACILITIES, PIPELINE TRANSFER STATIONS AND NATURAL GAS PRODUCTION, STORAGE AND PROCESSING FACILITIES

November 2023

EXECUTIVE SUMMARY

The amendments to Ventura County Air Pollution Control District's (District) Rule 74.10, Components at Crude Oil and Natural Gas Production Facilities, Pipeline Transfer Stations, and Natural Gas Production, Storage and Processing Facilities will enhance the existing inspection and maintenance programs to further control leaking emissions of reactive organic compounds (ROC) and methane (CH₄). The District was required to review Rule 74.10 by California Assembly Bill 617 (AB 617)¹. Air districts in nonattainment areas are required by AB617 to adopt an expedited schedule to implement the most current Best Available Retrofit Control Technology (BARCT) emission limits on industrial sources that are subject to the State Cap-and-Trade program.

On December 11, 2018, the Ventura County Air Pollution Control Board approved an expedited rule adoption schedule. The expedited schedule included a tentative adoption date of June 1, 2023 for amendments to Rule 74.10. The expected adoption date for amendments to Rule 74.10 is December 12, 2023.

Existing stationary sources in nonattainment areas such as Ventura County have been subject to BARCT requirements since the 1980s. Although AB 617 legislation does not specifically define BARCT, California Health and Safety Code (CA H&SC) Section 40406² defines BARCT as follows:

"BARCT is an air emission limit that applies to existing sources and is the maximum degree of reduction achievable, taking into account environmental, energy and economic impacts by each class or category of source."

AB 617 further recognizes that "existing law authorizes a district to establish its own best available control technology requirement based upon the consideration of specified factors."

As part of the BARCT Rule Evaluation, the District identified more stringent leak detection and repair (LDAR) leak thresholds, repair times, and frequency of inspection in other district, state, and federal regulations. Therefore, the District conducted a broader rule making effort, including a comprehensive technical analysis, in-depth review of local, state, and federal regulations, cost-effectiveness analysis, and a robust public process.

In addition, the U.S. Environmental Protection Agency (EPA) established Reasonably Available Control Technology (RACT) requirements for the oil and natural gas industry subject to the agency's 2016 Control Techniques Guidelines

¹ AB 617, Garcia, C., Chapter 136, Statutes of 2017, Retrieved from https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB617
11/20/2023

² Health and Safety Code, Division 26, Part 3, Chapter 5.5, Article 1, Retrieved from https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=HSC§ionNum=40406

(CTG) for the Oil and Gas Industry.³ To address the 2016 CTG, the California Air Resources Board (CARB) adopted the Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities Regulation (CARB GHG)⁴, which establishes methane emission standards for crude oil and natural gas sources. CARB GHG defaults to local air district rules for some categories of emission sources.

On September 30, 2022, EPA finalized in the Federal Register a limited approval, limited disapproval of CARB GHG⁵. EPA's Technical Support Document (TSD)⁶ from this action references the 2016 CTG as containing EPA's RACT recommendations for reducing ROC and CH₄ emissions from special equipment and processes used in the oil and natural gas industry. As part of this action, EPA cited deficiencies in CARB GHG.

Based on District staff's comprehensive technical analysis, in-depth review of local, state, and federal regulations, and a robust public process, the District is proposing several amendments to Rule 74.10 which will reduce ROC and CH₄ emissions in the District. The proposed rule amendments will also address BARCT requirements pursuant to AB 617.

Additional changes are proposed by staff which improve rule clarity and improve the District's ability to verify compliance for subject sources. In order to maintain consistency in District rules, the District is concurrently proposing amendments to Rule 71 to ensure the definitions of terms used in all District rules applicable to the petroleum production and processing industry are the same.

BACKGROUND

Source Description

The sources of fugitive ROC and CH₄ emissions impacted by the proposed revisions to Rule 74.10 are found in the petroleum production and processing industry. They include crude oil and natural gas producers, processors, and pipeline companies.

The purpose of these rule revisions is to limit ROC and CH₄ emissions from components at

these facilities, including, but not limited to, valves, stuffing boxes, threaded connections, flanges, pumps, compressors, pressure relief valves, hatches, sight glasses and open-ended lines.

ROC and CH₄ emissions can occur from oil and gas flowing through components containing or contacting ROC and/or CH₄ streams when those components do not have a vapor-tight seal.

³ Control Techniques Guidelines for the Oil and Natural Gas Industry, October 20, 2016

<https://www.epa.gov/sites/default/files/2016-10/documents/2016-ctg-oil-and-gas.pdf>

⁴ California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 10 Climate Change, Article 4, Sub article 13: Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities, October 2018,

<https://ww2.arb.ca.gov/sites/default/files/2020-03/2017%20Final%20Reg%20Orders%20GHG%20Emission%20Standards.pdf>

⁵ EPA. Limited Approval, Limited Disapproval, of California Air Plan Revisions; California Air Resources Board, Final Rule (30 September, 2022), Retrieved from: <https://www.govinfo.gov/content/pkg/FR-2022-09-30/pdf/2022-20870.pdf>

⁶ EPA. Technical Support Document for EPA's Rulemaking for the California State Implementation Plan.

April 2022. Retrieved from:

<https://www.regulations.gov/document/EPA-R09-OAR-2022-0416-0002>

In Ventura County, crude oil and natural gas production and processing is performed at 72 stationary sources. In addition, nine stationary sources operate pipeline transfer stations, which store and transport crude oil across the county via pipelines.

Amendments for Best Available Retrofit Control Technology (BARCT) (See Also Attachment #1 and #2)

The District evaluated potential amendments to the leak detection and repair requirements for District Rule 74.10. As part of this analysis, the District reviewed rule requirements, repair timeframes and leak thresholds from the following air district rules, state and federal regulations and guidelines:

- EPA Control Techniques Guidelines (CTG) for the Oil and Gas Industry, EPA-453/B-16-001 (2016)
- EPA Technical Support Document (TSD) for EPA’s Rulemaking for the California SIP
- California Air Resources Board’s Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities Regulation (CARB GHG)
- San Joaquin Valley Unified Air Pollution Control District Rule 4409 (SJVAPCD)
- South Coast Air Quality Management District Rule 463 and 1173 (SCAQMD)
- Santa Barbara County Air Pollution Control District Rule 331 (SBCAPCD)

PROPOSED RULE REVISIONS

The proposed revisions to Rule 74.10 reduce ROC and CH₄ emissions by enhancing the inspection and maintenance program at crude oil and natural gas production and processing facilities. Updates to the Operator Management Plan to comply with revisions to this rule must be completed and submitted to the District by December 31, 2024. All other provisions will become effective upon date of adoption of the revisions.

Rule 74.10.A, Applicability

The proposed revisions expand the applicability of Rule 74.10 to include natural gas gathering and boosting stations per CARB GHG, Section 95666, Applicability.

Natural gas underground storage facilities and natural gas transmission compressor stations will continue to be regulated by the District under the CARB GHG Regulation and not by this rule.

74.10.B, Identification Requirements

District inspection staff have experienced issues with tags becoming weathered and unreadable in the field, hampering efforts to confirm leak rates and/or repair periods. The proposed revisions clarify tag legibility requirements and also standardize the 4-quarter time period for tag attachment to verify existing requirements listed in VCAPCD Rule 74.10.F.6 through .9.

74.10.C, Operating Requirements

74.10.C.2: The proposed revisions remove the term “component category” from the rule requirements. This was removed from VCAPCD Rule 74.10, Attachment #1 and replaced with leak thresholds based on leak concentration in parts per million by volume (ppmv) per CARB GHG, Section 95669, Table 2 and SJVAPCD Rule 4409, Subsection 5.1.4, Table 4.

74.10.C.3: District inspection staff have encountered leaking open-ended lines in the field. Even open-ended lines that are not

leaking can create the potential for large leak rates if leaks eventually occur. Proactively sealing these potential leak points helps to minimize possible emissions. The proposed revisions require that open-ended lines, leaking or not, be sealed or double valved at all times except during attended operations requiring process fluid flow through the open-ended lines per SJVAPCD Rule 4409, Subsection 5.1.4 and SCAQMD Rule 1173, Subsection (d)(1)(E). Non-leaking open-ended lines will be required to be sealed or double valved per time limit listed in VCAPCD Rule 74.10.F.5 to avoid violation. If the District inspector detects a leak at an open-ended line $\geq 10,000$ ppmv a violation will be issued per VCAPCD Rule 74.10, Attachment 1. Repaired/replaced open-ended lines will be verified by District inspector.

74.10.D, Operator Inspection Requirements

74.10.D.1: The proposed revisions expand the operator inspection requirements to include natural gas gathering and boosting stations per CARB GHG, Section 95666, Applicability.

74.10.D.2: District inspection staff have found that hatches and pressure vacuum relief valves on oilfield tanks can be a significant leak source. These leaks can be caused by worn hatch seals, debris on sealing surfaces, incorrectly secured hatch covers, or improperly seated valve poppets. The proposed revisions add “hatches” and “pressure-vacuum relief valves” to component types to be inspected daily or weekly and is listed in the definition of component in both CARB GHG, Subsection 95667(a)(10), 95669(f) and SJVAPCD Rule 4409, Subsection 3.7.

74.10.D.3: The proposed revisions clarify that these requirements apply when an initial inspection is conducted without Method 21 instrumentation (examples include optical gas imaging, audio or visual inspection techniques) that subsequent follow-up inspections of components that cannot be immediately repaired must be performed with Method 21 instrumentation per CARB GHG Subsection

95669(f)(3) and CARB comments dated 09/06/2023.

The proposed revisions also clarify Method 21 test method to include the title of the test method, “Determination of Volatile Organic Compounds Leaks”. This addition of the method title is proposed in multiple locations throughout this rule.

74.10.D.4: The proposed revisions clarify that any leak inspection of new, repaired or replaced component shall be done as soon as practical, but no later than the date on which the component is returned to service after repair, using EPA Method 21, Determination of Volatile Organic Compound Leaks.

74.10.D.5.b: District inspection staff have determined that leak rates from threaded connections and flanges are comparable to leak rates from other equipment and do not warrant reduced monitoring frequency. The proposed revisions remove the annual inspection allowance for threaded connections and flanges per CARB comments dated 09/06/2023. None of the rules or guidance reviewed for this rule (see page 3) provide an exemption from quarterly inspections for threaded connections and flanges.

The proposed revisions specify unsafe-to-monitor components shall be inspected annually or at critical process unit shut-down, whichever occurs first per CARB GHG Subsection 95669 (g)(2) and SJVAPCD Rule 4409, Subsection 5.2.7.

74.10.D.7: District inspection staff have experienced issues with tags becoming weathered and unreadable in the field, hampering efforts to confirm leak rates and/or repair periods. The proposed revisions clarify tag legibility requirements and standardize the 4-quarter time period for tag attachment to verify existing requirements listed in VCAPCD Rule 74.10.F.

74.10.D.7.a and .b: The proposed revisions specify that leaks are required to be repaired

within the repair periods specified in VCAPCD Rule 74.10, Table 1 per EPA comments dated 08/28/23.

74.10.D.8 and .9: The proposed revisions include removal of allowance to revert to annual leak inspections if the facility can show good performance by demonstrating low component leak counts for four consecutive quarters. This allowance is superseded by the CARB GHG requirement for quarterly component inspections per CARB GHG, Subsection 95669(g).

74.10.D.8: The proposed revisions specify that District inspections cannot be counted toward required facility inspections mandated by this rule per SJVAPCD Rule 4409, Subsection 5.2.14.

74.10.D.9: Clarifies that enforcement action will not be taken on any leaks, detected during operator inspection, and in excess of those allowed in Section C or Attachment #1 of the rule as long as the leaking components are repaired, replaced or removed from service as soon as practical but no later than the time frame specified in the rule per CARB GHG, Subsection 95669(o)(2)(B), SJVAPCD Rule 4409, Subsection 5.1.3.2.1 and WSPA comments dated 10/24/23.

74.10.D.10: Clarifies that leaking components detected during operator inspection that are not repaired, replaced or removed from service within the time frame specified in the rule shall be counted toward determination of compliance with provisions of Section C and Attachment #1 per CARB GHG, Subsection 95669(o)(2)(A), SJVAPCD Rule 4409, Subsection 5.1.3.2.2 and WSPA comments dated 10/24/23.

74.10.D.11: Clarifies that any operator inspection conducted annually that demonstrates a leak rate in excess for those allowed in Section C or Attachment #1 shall constitute a violation regardless of whether or not the leaking components are repaired, replaced or removed from service within the allowable repair time frame period specified in

the Rule per SJVAPCD Rule 4409, Subsection 5.1.3.2.3 and WSPA comments dated 10/24/23.

74.10.E, Operator Management Plan (OMP) Requirements

74.10.E.1: Due to limitations of District staff resources, the proposed revisions provide 120 days (previously 90 days) for the Air Pollution Control Officer to respond to the OMP. The revisions also specify the requirement that the OMP include component identification and component location for all components subject to leak regulation per EPA Control Technique Guidelines (CTG), 1.2(d)(3) and EPA Technical Support Document (TSD), 14.

74.10.E.1.a.1: The proposed revisions add the requirement that the OMP include sitemap of facility per EPA CTG, 1.2(d)(1) and CARB GHG, Subsection 95669(d)(1)(B).

74.10.E.1.b: The proposed revisions add the requirement that the OMP include identification and justification of critical process units per SJVAPCD Rule 4409, Subsection 6.1.3.2.2.

74.10.E.1.e: District inspection staff have determined that leak rates from flanges and threaded fittings are comparable to other types of oilfield components and have determined that flanges and threaded fittings should not be exempted from quarterly inspection requirements. The proposed revisions remove identification requirement in the OMP for flanges or threaded fittings subject to zero leak threshold and exempt from all inspection requirements and flanges or threaded fittings subject to annual inspections – also removed from VCAPCD Rule 74.10.D.5.b per CARB comments dated 09/06/2023. None of the rules or guidance reviewed for this rule (see page 3) provides an exemption from quarterly inspections for flanges or threaded fittings.

The proposed revisions specify the requirement that the OMP include identification and justification of unsafe-to-monitor components per EPA TSD, 15, EPA CTG G.8(a)(6)(i) and SJVAPCD Rule 4409, Subsection 6.1.3.2.2.

74.10.E.1.f: The proposed revisions specify the requirement that the OMP include identification and justification of inaccessible components per EPA TSD, 15, EPA CTG G.8(a)(6)(ii) and SJVAPCD Rule 4409, Subsection 6.1.3.2.2.

74.10.E.3: The proposed revisions remove clauses that have expired and specify the requirement that the OMP be updated to include exempt status per the revised rule by December 31, 2024.

74.10.E.4: The proposed revisions remove clauses that have expired and specify the requirement that the OMP be updated to include any provision that is needed to show compliance with the revised rule by December 31, 2024.

74.10.E.5: The proposed revisions remove the clauses that have expired and specify the requirement that an annual report to update the OMP be submitted to the Air Pollution Control Officer no later than December 31 of the following calendar year. Record submittal requirements standardized with current District practices and County Counsel input.

Due to limitations of District staff resources, the proposed revisions provide 120 days (previously 90 days) for the Air Pollution Control Officer to respond to the OMP.

74.10.F, Operator Repair Requirements

74.10.F.1: Requirements to minimize leaks within one hour of detection did not specifically include critical components. The proposed revisions clarify time limit to minimize leaks at critical components per SJVAPCD Rule 4409, Subsection 5.3.6.1.

74.10.F, Table 1, Repair Periods (See Also Attachment #2 and #3):

- Minimum leak threshold for minor leaks reduced from 1000 ppmv to 500 ppmv per EPA CTG I.2(a) and SJVAPCD Rule 4409, Subsection 3.2, Tables 2 and 4.

- Leak repair periods revised per EPA TSD 13 (ref. CTG), CARB GHG, Subsection 95669, Table 1, SJVAPCD Rule 4409, Subsection 5.3.5, Table 6 and WSPA comments dated 10/24/23.
- Standardize ppmv abbreviations per CARB GHG and SJVAPCD Rule 4409.
- Repair periods may be extended for non-critical components on a case-by-case basis, per enforcement discretion.

Removed footnote ^c, no longer included in VCAPCD Rule 74.10.F, Table 1, Repair Periods.

74.10.F.3: Without proper re-inspection, components that were thought to be leak-free may continue to leak until confirmation that the component is leak-free per Method 21 re-inspection. The proposed revisions remove the 30-day window for re-inspection of a repaired or replaced component and clarify re-inspection of component, using Method 21, as soon as practical but no later than the date on which the component is returned to service after repair.

74.10.F.5: District inspection staff have encountered leaking open-ended lines in the field. Even open-ended lines that are not leaking can create the potential for large leak rates if leaks eventually occur. Proactively sealing these potential leak points helps to minimize possible emissions. The proposed revisions require that open ended lines be sealed or double valved as soon as practical but no later than one day after detection except during attended operations per SJVAPCD Rule 4409, Subsection 5.1.4. Non-leaking open-ended lines will be required to be sealed or double valved per time limit listed in VCAPCD Rule 74.10.F.5 to avoid violation. If the District inspector detects a leak at an open-ended line $\geq 10,000$ ppmv a violation will be issued per VCAPCD Rule 74.10, Attachment 1. Repaired/replaced components on open-ended lines will be verified by District inspector.

74.10.F.6: The proposed revisions to include all major gas leaks $\geq 10,000$ ppmv (previously 50,000 ppmv) at critical compressor seal, pump

seal, pressure relief valve or valve that cannot be repaired in the time period specified in Table 1 be replaced with BACT component within one year or at critical process unit shutdown, whichever occurs first per SJVAPCD Rule 4409, Subsection 5.3.7.2.

74.10.F.7: The proposed revisions include written notification to the District for major gas or liquid leaks, including leaks $\geq 10,000$ ppmv (previously $>50,000$ ppmv), at a critical component that cannot be repaired in the time period per VCAPCD Rule 74.10.F, Table 1 reduced from 3 months to 30 days per WSPA comments dated 10/24/23.

74.10.F.8: The proposed revisions include changing all minor gas leaks to ≥ 500 ppmv (previously 1,000 ppmv) to $<10,000$ ppmv at critical compressor seal, pump seal, pressure relief valve or valve or any leak from critical components other than compressor seal, pump seal, pressure relief valve or valve be repaired within one year or at critical process unit shutdown, whichever occurs first.

74.10.F.9: The proposed revisions clarify both major gas or liquid leaks. Revisions also include requirement of written notification to the District for five major leaks (including leaks $\geq 10,000$ ppmv (previously 50,000 ppmv) within past 12 months at compressor seal, pump seal, pressure relief valve or valve that cannot be repaired in the time period per VCAPCD Rule 74.10.F, Table 1 reduced from 3 months to 14 days.

74.10.G, Exemptions (See Also Attachment #4 and #5)

74.10.G.1.a and .b: The proposed revisions remove these two gaseous stream low-ROC exemptions from the rule due to emphasis on methane-based rule requirements per CARB Initial Statement of Reasons, CARB GHG dated 04/25/2023.

The proposed revisions add exemption for components that are buried below ground per CARB GHG, Subsection 95669(c)(5).

The proposed revisions add exemption for components in vacuum service per CARB GHG, Subsection 95669(c)(7).

74.10.G.1.c: The proposed revisions remove the liquid stream low-ROC exemption from the rule, replaced with VCAPCD Rule 74.10.G.1.q.

The proposed revisions add exemption for components used for compressed air per CARB GHG, Subsection 95669(c)(6).

74.10.G.1.d: The proposed revisions add exemption for components used for pneumatic controllers or pumps using compressed air or electricity to operate per CARB GHG, Subsection 95669(c)(12).

74.10.G.1.e: The proposed revisions remove the low fluid weight exemption from the rule due to it most likely being less than the API Gravity <20 annual avg listed in VCAPCD Rule 74.10.G.1.h.

The proposed revisions add exemption for components at crude oil production facilities handling commercial quality natural gas and are not owned or operated by the oil production facility per CARB GHG, Subsection 95669(c)(4).

74.10.G.1.f: The proposed revisions add exemption for components at crude oil or natural gas facilities that are not owned or operated by the production facility per CARB GHG, Subsection 95669(c)(8).

74.10.G.1.g: The proposed revisions clarify exempt components handling produced water downstream of a produced water tank, wash tank or other oil and water separating device compliant with Rule 71.1 and/or Rule 71.2, or steam injection well or water flood well per CARB GHG, Subsections 95669(c)(3) and (c)(11).

74.10.G.1.h: The proposed revisions add exemption for components found on tanks, separators, wells, and pressure vessels – used exclusively for crude oil with an API Gravity less than 20 averaged on an annual basis. The average annual API Gravity shall be determined using certified reports submitted to the

California Geologic Energy Management Division (CalGEM). This includes components used for crude oil and the associated produced water components per CARB GHG, Subsection 95669(c)(2).

74.10.G.2.a.2: The proposed revisions increase the ROC vapor destruction or removal efficiency from 90% to 95% per EPA CTG, E.1(a)(1)(i).

74.10.G.2.b: The proposed revisions remove exemption for ½" and smaller stainless steel tube fittings that have been determined to be leak free per EPA TSD, 12 and CARB comments dated 09/06/2023 – Also, this exemption has been removed from CARB GHG Subsection 95669(c)(7) and SJVAPCD Rule 4409, Subsection 4.2.10.

74.10.G.2.d: The proposed revisions include removal of exemption for flanges or threaded connections designated in the OMP as subject to zero leak threshold – removed from VCAPCD Rule 74.10.D.5.b and 74.10.E.1.e per CARB comments dated 09/06/2023. It is worthwhile to note that no other District in the state nor the CARB GHG regulation provides an exemption from quarterly inspections for threaded connections and flanges.

74.10.G.3.a: The proposed revisions add exemption for components on equipment or wells that are actively undergoing drilling, completion, plugging and abandonment or maintenance activities and requires inspection upon work completion and before the end of the current quarter per CARB GHG, Subsection 95669(c)(14) and CARB 15/45-day Modifications, Item #4.f.

74.10.G.3.b: The proposed revisions add exemption for temporary components used for maintenance <300 hours per year with facility documentation provided upon request of the District per CARB GHG, Subsection 95669(c)(9).

74.10.G.4:

The proposed revisions add exemption for portable tanks from daily inspection requirements if the portable tank meets the

following, 1. Does not increase storage capacity of a tank battery, 2. Not located within 150 feet of a tank battery, or 3. The tank is used during maintenance activity at a tank battery or well and has not held or stored crude oil for more than 60 days per WSPA comments dated 10/24/23 and VCAPCD Rule 71.1.D.1.c.1 through 3.

74.10.H, Recordkeeping Requirements

74.10.H.1.a: The proposed revisions require the inspection log document all leaking components, immediately repaired or not, per EPA CTG, 1.5(a)(2)(vi) and (ix).

74.10.H.1.b: The proposed revisions require the inspection log document all components inspected, leaking or not, and total number and percentage of leaks detected by leak concentration per SJVAPCD Rule 4409, Subsection 6.2.1.1.

74.10.H.1.c: The proposed revisions require the inspection log document all liquid leaks, immediately repaired or not, including date and time of leak detection and whether it is major or minor leak per SJVAPCD Rule 4409, Subsection 6.2.1.4.

74.10.H.1.d: The proposed revisions require the inspection log document all gaseous leaks, immediately repaired or not. If the leak cannot be immediately repaired, recordkeeping shall also include date and time of leak measurement, instrument reading in ppmv and whether the leak is major or minor per SJVAPCD Rule 4409, Subsection 6.2.1.4 and EPA CTG 1.5(a)(2)(vi) and (ix).

74.10.H.1.e: The proposed revisions require that the inspection log include date that liquid or gaseous leaks are repaired to leak-free condition including description of repair action and instrument reading in ppmv of the re-inspected component per EPA CTG, 1.5(a)(2)(ix)(K) and CARB GHG, Subsection 95669(i)(1).

74.10.H.1.g: The proposed revisions require inspection log include identification of unsafe-to-monitor and/or inaccessible components inspected per EPA CTG 1.5(a)(2)(ix)(D), 1.5(b)(9) and CARB GHG, Subsection 95669(d)(1)(E).

74.10.H.1.i: The proposed revisions require that the inspection log include the beginning and end time of inspection per EPA CTG 1.5(a)(2)(i) and (ii).

74.10.H.1.j: The proposed revision requires that the inspection log include the name of inspector, facility operator, and the leak detection and repair contractor performing the inspection if the inspection is not conducted by the facility operator per EPA CTG 1.5(a)(2)(iii).

74.10.H.1.k: The proposed revision requires the inspection log to include manufacturer, model and serial number of the EPA Method 21-compliant instrument used at the inspection per EPA CTG 1.2(c)(3) and 1.5(a)(2)(iv).

74.10.H.3: The proposed revisions require that all records required by this rule be retained by the operator for a minimum of 5 years after the date of inspection per EPA TSD, 17, EPA CTG 1.5(a) and SJVAPCD Rule 4409, Subsection 6.2.4.

74.10.H.4: The proposed revisions require that, effective January 1, 2024, any person operating pursuant to VCAPCD Rule 74.10 submit all records generated during each calendar year by December 31st of the following calendar year. Records may be submitted in conjunction with the annual compliance inspection or a schedule approved by the Air Pollution Control Officer per EPA CTG, 1.5(b) and CARB GHG, Subsection 95669(j) and record submittal requirements standardized with current practice and County Counsel input.

74.10.I, Test Methods

74.10.I: The proposed revisions update test method references, including title, to the most current test methods cited in the rule and also removes test methods no longer cited and/or required by the rule.

74.10.J, Violations

74.10.J: The proposed revisions clarify violation status for any facility regulated under this rule.

74.10.K, Definitions

74.10.K.1: The proposed revisions include definition of “Attended Operation” as it relates to open-ended lines per SJVAPCD Rule 4409, Subsection 5.1.4.1.

74.10.K.4: The proposed revisions include update to the definition of “Component” to include threaded connection, flange, manway, pipe, pipeline, pressure-vacuum relief valve or meter and includes components associated with wellheads or idle wells per CARB GHG, Subsection 95667(a)(10) and SJVAPCD Rule 4409, Subsection 3.6 – “Idle Well” added per CARB GHG, Subsection 95667(a)(30) and 95669(d).

In addition, proposed revision includes removal of “Other Component” due to deletion from VCAPCD Rule 74.10, Attachment 1.

74.10.K.11: The proposed revisions include definition of “EPA Method 21 Instrument/Instrumentation” per EPA CTG 1.2(c)(8)(i), CARB GHG, Subsection 95669(b)(1) and (2) and SJVAPCD Rule 4409, Subsection 6.3.1.

74.10.K.16: The proposed revision includes definition of “Idle Well” per CARB GHG Subsections 95667(a)(30) and 95669(d).

74.10.K.21: The proposed revision includes revision of the definition of “Major Gas Leak” per revised VCAPCD Rule 74.10, Table 1 and VCAPCD Rule 74.10, Attachment 1.

74.10.K.23: The proposed revision includes a definition of “Manway” as referenced in the definition of “Component” per VCAPCD Rule 74.10.K.4.

74.10.K.24: The proposed revision includes revision of the definition of “Minor Gas Leak”

per revised VCAPCD Rule 74.10, Table 1 and VCAPCD Rule 74.10, Attachment 1.

74.10.K.27: The proposed revision includes definition of “*Natural Gas Gathering and Boosting Station*” per CARB GHG, Section 95666, Applicability and Subsection 95667(a)(37).

74.10.K.29: The proposed revision includes definition of “*Natural Gas Transmission Compressor Station*” per CARB GHG, Section 95666, Applicability and Subsection 95667(a)(39).

74.10.K.30: The proposed revision includes definition of “*Natural Gas Underground Storage Facility*” per CARB GHG, Section 95666, Applicability and Subsection 95667(a)(41).

74.10.K.33: The proposed revisions clarify definition of “*Open Ended Line*” per SJVAPCD Rule 4409, Subsection 5.1.4.1 and SCAQMD Rule 1173, Subsection (d)(1)(E).

74.10.K.34: The proposed revision includes definition of “*Optical Gas Imaging (OGI)*” per CARB GHG, Subsection 95667(a)(46) and SJVAPCD Rule 4409, Subsection 3.28.

74.10.K.38: The proposed revision modifies the definition of “*Pressure Relief Valve (PRV)*” per WSPA comments dated 10/24/23.

74.10.K.39: The proposed revision includes definition of “*Pressure-Vacuum Relief Valve (PVRV)*” per WSPA comments dated 10/24/23.

Removal of the definition of “*Rupture Disc*” which is not referenced in VCAPCD Rule 74.10.

74.10.K.42: The proposed revision includes definition of “*Steam Injection Well*” per CARB GHG, Subsection 95669(c)(11) and referenced in VCAPCD Rule 74.10.G.1.g.

74.10.K.43: The proposed revision includes clarification of the tag requirements contained in VCAPCD Rule 74.10.B and D.7.

74.10.K.49: The proposed revision includes definition of “*Waterflood Well*” per CARB GHG, Subsection 95669(c)(11) and referenced in VCAPCD Rule 74.10.G.1.g.

74.10.K.50: The proposed revision includes definition of “*Wellhead*” per CARB GHG Subsection 95667(a)(76).

74.10, “Attachment 1” (See Also Attachment #6)

The proposed revision removes the “Attachment 1” table and allowances based on component types, leak rate and number of components inspected and replaces it with revised table based on leak concentration vs. leak allowances only (CARB GHG, Subsection 95669(o), Table 2 and SJVAPCD Rule 4409, Subsection 5.1.4, Table 4).

- Minor gas leak concentration reduced from 1000 ppmv to 500 ppmv per EPA CTG 1.2(a) and SJVAPCD Rule 4409, Table 2 and 4.
- Major leaks $\geq 50,000$ ppmv have a zero-leak threshold per CARB GHG Subsection 95669(o), Table 2.
- Proposed leak allowances are **identical** to CARB GHG, Subsection 95669(o), Table 2 and SJVAPCD Rule 4409, Subsection 5.1.4, Table 4 (except that the $>50,000$ ppm category is not included in the SJVAPCD table).
- Standardize ppmv abbreviations per CARB GHG and SJVAPCD Rule 4409.

IMPACTS OF THE PROPOSED RULE

ROC Emissions Impacts

VCAPCD permits approximately 81 facilities subject to Rule 74.10. The 2020 emissions from leaks at these facilities from sources that would be covered by this rule are shown in Table 1 below. The effective control factor for the 2020 emissions is 64% based on the evaluation of the control efficiency of Rule 74.10 from 1998.

Table 1 – Current ROC Emissions and Control Rates

2020 ROC emissions (tons/year)	Control Efficiency	Baseline ROC Emission Rate (tons/year)
201	64%	560

SJVAPCD determined that the 2023 version of Rule 4409, the SJVAPCD oil and gas component leak detection and repair rule, would reduce ROC emissions by 20 percent⁷. This 20 percent control is in addition to the control from the version of Rule 4409 which was in effect prior to 2023.

The expected emission reductions from this proposed revision to Rule 74.10 were determined by applying the 20 percent emission reduction determined by SJVAPCD to the current Ventura County emission inventory. The results of this emission calculation are shown in Table 2 along with the new overall control efficiency.

Table 2 – Emission Reductions and Control Efficiency at 500 ppmv

2020 ROC emissions (tons/year)	Additional Control Efficiency	Emission Reductions (tons/year)	New Control Efficiency
201	20%	40	71%

These reductions from this source category are significant, and all emission reductions are needed to reach the federal and state ambient ozone air quality standards. Requiring the repair or replacement of leaking components is a feasible control measure for oil and gas facilities covered by Rule 74.10.

Cost-Effectiveness

VCAPCD Staff calculated cost-effectiveness with estimates determined by SJVAPCD for the 2023 Rule 4409 amendments. The cost estimates developed by SJVAPCD were created using information collected from manufacturers, operators, CARB, and SJVAPCD data.

The costs of inspection requirements plus the cost of increased equipment repair and replacement determined by SJVAPCD are shown below. SJVAPCD determined both the incremental increase in cost of the LDAR inspections and the total cost of LDAR inspections, as shown in Table 3. SJVAPCD did not calculate the current cost of repairing or replacing equipment using a 1000 ppmv leak threshold. Based on facility inspections, VCAPCD staff estimates the fraction of leaking equipment to be half of what it is at 500 ppmv, resulting in half the repair and replacement cost.

Table 3 – Inspection, Repair, and Replacement Costs at 500 ppmv

SJVAPCD Costs	Cost (\$/year)
Inspections (total)	4,633,556
Inspections (incremental)	1,167,165
Repair and Replacement Cost (total, calculated)	4,198,177
Repair and Replacement Cost (incremental)	2,099,089

⁷ Staff Report for Proposed Amendments to Rules 4401, 4409, 4455, 4623, & 4624, Appendix B, Table B-2.

Capital costs have not been included in either the VCAPCD or SJVAPCD cost effectiveness evaluations. No significant capital costs are expected to result from either SJVAPCD Rule 4409 or VCAPCD Rule 74.10.

Table 4 shows the cost effectiveness for the proposed revisions to Rule 74.10.

Table 4 – Cost Effectiveness at 500 ppmv

Cost Increase (\$/year)	ROC Emission Reductions (tons/year)	Cost Effectiveness (\$/ton)
1,230,002	40	30,526

The cost effectiveness for the proposed Rule 74.10 is greater than the BARCT cost effectiveness threshold of \$30,000 per ton of ROC adopted by the VCAPCD Board on November 12, 2019. District staff notes that while the proposed revisions to Rule 74.10 are slightly more than the BARCT cost effectiveness threshold, the lower leak threshold has been implemented in another jurisdiction and is the appropriate level of control. District staff note that the BARCT cost effectiveness threshold has not been adjusted for inflation, but the cost of implementation is presented in 2023 dollars.

Incremental Cost-Effectiveness Analysis

CHSC Section 40920.6(a) requires districts to identify one or more potential control options, assess the cost-effectiveness of those options, and calculate the incremental cost-effectiveness.

Incremental cost-effectiveness is defined as the difference in control costs divided by the difference in emission reductions between two potential control options achieving the same emission reduction goal of a regulation.

Table 5 – Incremental Cost Effectiveness at 100 ppmv

Cost Increase (\$/year)	ROC Emission Reductions (tons/year)	Cost Effectiveness (\$/ton)
2,759,283	6.2	447,055

Staff concludes that reducing the leak detection threshold increases emission reduction, but that the lower threshold is not cost-effective.

Socio-Economic Impact

The provisions of Section 40728.5 of the California Health and Safety Code requires a socioeconomic impact analysis whenever the air quality or emissions limitations will be significantly affected. The Board must evaluate the following socioeconomic information on proposed revisions to Rule 74.10.

The proposed revisions to Rule 74.10 will have no impact on CO, SOx, NOx, or their precursors. The proposed revisions will reduce the emissions of ROC, an ozone precursor.

- (1) The type of industries or businesses, including small business, affected by the rule or regulation.

The amendments to this rule may directly affect the following facilities:

- Crude Oil Production
- Crude Oil Processing
- Natural Gas Production
- Natural Gas Processing
- Pipeline Facilities

(2) The impact of the rule amendments on employment and the economy of the region.

Revisions to this rule are not expected to have a negative impact on either employment or the economy of Ventura County. Worst-case cost estimates for the end user are not significant enough to impact employment.

(3) The range of probable costs, including costs to industry or business, including small business, of the rule or regulation.

Based on staff analysis, the cost-effectiveness of \$30,526 per ton of ROC reduced may be expected. Costs to individual facilities will vary significantly depending on the size and sources at an individual facility.

(4) The availability and cost-effectiveness of alternatives to the rule or regulation being proposed or amended.

Proposed revisions to Rule 74.10 implement the most cost-effective control options, which involve monitoring for leaking components at oil and gas facilities. Other control alternatives, such as monitoring at a lower leak threshold, are not cost effective and have not been implemented in other jurisdictions.

(5) The emissions reduction potential of the rule.

The anticipated emission reduction potential of the proposed rule is approximately 40 tons of ROC per year. These emission reductions result from more frequent repair and replacement of equipment.

(6) The necessity of adopting, amending, or repealing the rule or regulation in order to attain state and federal ambient air standards pursuant to Chapter 10 (commencing with Selection 40910).

Ventura County is classified as a nonattainment area for both the state and federal Ambient Air Quality Standards for ozone. These proposed rule amendments will reduce ROC emissions which are a precursor to the formation of ozone. According to the District's 2022 AQMP, these emissions reductions will help the District in its effort to attain the standards. CHSC Section 40914(b)(2) requires that the District adopt every feasible measure to reduce ozone precursors.

ENVIRONMENTAL IMPACTS OF METHODS OF COMPLIANCE / CEQA

Methods of Compliance

California Public Resources Code § 21159 requires the District to perform an environmental analysis of the reasonably foreseeable methods of compliance if the proposed rule requires "the installation of pollution control equipment, or [specifies] a performance standard or treatment requirement..." The proposed revisions to Rule 74.10 involve no pollution control equipment. Therefore, an analysis is not required.

CEQA Requirements

Staff has determined that adoption of the proposed revision to Rule 74.10 is exempt from the requirements of the CEQA under Section 15061(b)(3) of the CEQA Guidelines because it can be seen with certainty that there is no possibility that these changes may have a significant effect on the environment.

ANALYSIS OF EXISTING FEDERAL AND DISTRICT REGULATIONS

California Health & Safety Code Section 40727.2(a) requires districts to provide a written analysis of

existing regulations prior to adopting, amending, or repealing a regulation. Section 40727.2(a) states:

“In complying with Section 40727, the district shall prepare a written analysis as required by this section. In the analysis, the district shall identify all existing federal air pollution control requirements, including, but not limited to, emission control standards constituting best available control technology for new or modified equipment, that apply to the same equipment or source type as the rule or regulation proposed for adoption or modification by the district. The analysis shall also identify any of that district's existing or proposed rules and regulations that apply to the same

equipment or source type, and all air pollution control requirements and guidelines that apply to the same equipment or source type and of which the district has been informed pursuant to subdivision (b).”

The following tables present the District's analysis of federal guidelines, other air district rules, and state regulations applicable to the same equipment.

MEETINGS AND COMMENTS

Public Workshop – August 29, 2023

A public workshop was held to present the proposed amendments to Rule 74.10 and Rule 71. The focus of the meeting was on the proposed changes to Rule 74.10 as those revisions reflect the most recent BARCT requirements. The proposed amendments to Rule 71 are administrative in nature and were presented for informational purposes.

The public had no comment on the proposed Rule 71 revisions.

Written Comments

The District received written comments from the Western States Petroleum Association (WSPA) dated September 27, 2023. District staff had multiple discussions with WSPA staff and members to discuss the comments and work out mutually acceptable resolutions. The comment letter and District responses are attached to this staff report as Attachments 7 and 8.

Advisory Committee – November 14, 2023

District staff notified all District permittees with sources subject to the Rule 71 series and Rule 74.10, and other interested parties by U.S. mail and/or email of an Advisory Committee meeting on the proposed revisions to Rule 74.10 and Rule 71.

Attachment #1 - District Rule Comparison Chart

Attachment #1

District Rule Comparison Chart

VCAPCD – Rule 74.10	SJVAPCD – Rule 4409	SCAQMD – Rule 1173 & 463	EPA CTG
<p><u>B – I.D. Requirements:</u> Label, Tag or APCO (written) approved system</p>	<p>5.1.1 – Identified with a tag for repair</p>	<p>(e)(1) – Physically I.D. clearly and visibly or EO written approval</p>	<p>I.2(d)(3) – List of fugitive emission components to be monitored and field I.D. via tagging, etc.</p>
<p><u>C – Operating Requirements:</u> C.1 – Hatches: Hatches closed at all times</p>	<p>5.1.2 – Hatches closed at all times</p>	<p>463(c)(3)(A) – Sample/gauge point equipped w/tight fitting cover</p>	
<p>C.2 – No major gas/liquid, minor liquid leaks per Attachment 1¹ unless tagged/repared per Rule. <i>Major</i> = >3 d/min or >10kppm <i>Minor</i> = <3d/min or >1kppm to 10kppm</p>	<p>5.1.4.1 – Unsealed/no double valve o/e line .2 – Component w/major liquid leak (>3 drops/min) .3 – Component w/>50kppm gas leak .4 – Component in excess of allowable leaks in Table 3² (<i>Proposed Table 4³</i>) <i>Major</i> = >10kppm <i>Minor</i> = 500 to 10kppm</p>	<p>(d)(1)(A) – Light liquid leak >3 drops/min (B) – Light liquid >50kppm (C) – Heavy liquid >500ppm (D) – Continuous 24hr period: (i) Light liquid >10kppm (ii) Atm PRD >200ppm (iii) Heavy liquid >100ppm</p>	<p>I.2(a) – <i>Fugitive Emission</i> – - Any visible emission per OGI or, - =/> 500ppm per Method 21</p>
<p><u>D – Operator Inspection Requirements:</u> D.2.a – Manned facilities 1x/day w/out instrument .b – Unmanned 1x/week w/out instrument .3.a – Unrepaired leaks measured w/M21 w/in 24 hrs .b – ...or end of normal business day during weekend/holiday .4 – Immediately reinspect repaired/repl. component w/M21</p>	<p>5.2.1 – Manned facilities 1x/day audio/visually .2 – Unmanned 1x/week audio/visually .3 – Unrepaired leaks measured w/M21 w/in 24 hrs and repaired per Table 1, below .5 – Immediately reinspect repaired/repl. Component w/M21</p>	<p>(f)(1)(A) – Manned facilities access pumps, compressors PRD’s 1x/8hrs audio/visually (F) – Inspect repaired/replaced</p>	<p>I.2(f)(3) – Re-survey repaired/replaced component</p>

<p>.5 – Inspect component every quarter w/M21 except;</p> <p>.a – Annually for inaccessible/unsafe w/M21 .b – Annually threaded components and flanges w/M21</p> <p>.6 – PRV inspected w/M21 w/in 3 days of press. release</p> <p>.7 – Until leak repaired affix w/tag and remove upon repair</p> <p>.8 – Inspect annually instead of quarterly if: .a – 4quarters <= .5% liquid leaks /major leaks have not been immediately repaired .b – No NOV for C.2 w/in last 12 months</p>	<p>.4 – Inspect component every quarter w/M21 except:</p> <p>.6 – Inaccessible component annually w/M21 .7 – Unsafe comp @ scheduled shut down w/M21 .8 – Pipes annually w/M21</p> <p>.12 – PRV initial inspected w/M21 w/in 24 hrs of pressure. release</p> <p>5.3.1 – Upon detection leak component tagged and removed upon: 5.3.2.1 – Repair/replace and, .2 – Inspect per M21 and, .3 – Components in compliance w/rule 5.3.3 – Tag info requirements</p> <p>5.2.9 – Until June 30, 2024 inspect annually instead of quarterly if: .1 – No leak NOV for 5 consecutive quarters for that component type .2 – No NOV for any 4409 violation during last 12 months</p>	<p>component w/in 30 days (B) – Access component quarterly w/M21 except: € – Inaccessible component annually w/M21</p> <p>(f)(1)(E) – PRV inspection w/M21 w/in 1 day or press. release and again in 14 days</p> <p>(f)(2) – Inspect annually instead of quarterly if: - no major liquid or gas leaks for 5 consecutive quarters (3) – PRD’s no major liquid leaks or >200ppm for 5 consecutive quarters</p>	<p>ASA(Practical) or w/in 30 days I.4(a)(1) – Insp well-site (+TB) semiannually (OGI or M21) (a)(2) – Gathering & Boosting Station (GBS) quarterly (OGI or M21) (a)(3) – Difficult to monitor (DtoM) (>2m elevation) w/</p> <ul style="list-style-type: none"> • -i - Written plan • .ii – ID & location • .iii – Why DtoM • .iv – Insp 1x yr <p>(a)(4) – Unsafe to monitor (UtoM)</p> <ul style="list-style-type: none"> • As above for DtoM except for no .iv • No inspection required <p>I.2(f)(3)(ii) – If repair/replacement cannot be done at initial detection, comp must be photographed (w/location) or tagged</p>
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<p>.c – Approval of written request to reduce frequency</p> <p>.9 – Inspection frequency reverts to D.5 if D.8.a or D.8.b are not met</p>	<p>.3 – Written request w/documentation for 9.2/.3</p> <p>.10 – Until June 30, 2024 inspection frequency reverts to 5.2.4 if 5.2.9.1/.2 are not met</p> <p>.11 – Until June 30, 2024 written notification when inspections change from annually to quarterly</p>	<p>(4) – Pumps >100ppm for 5 consecutive quarters</p> <p>(6) – Inspection frequency reverts to quarterly if major liquid/gas leaks, pumps >100ppm, PRD's >200ppm</p> <p>(5) – Written notification when inspections change from annually to quarterly</p>	
<p><u>E – Operator Mgmt. Plan</u></p> <p>E.1 – Submit OMP to APCO for approval to include exempt and <u>subject components</u> (EPA TSD rule deficiency – List of all equipment subject to LDAR)</p> <p>Leaking component that cannot be immediately repaired shall include:</p> <p>.a.1 – I.D. #, name or code</p> <p>.2 – component type, process unit, location</p> <p>.3 – date found leaking and repair description</p> <p>.b – I.D. critical process units</p> <p>.c – I.D. exempt units per G.1</p> <p>.d – I.D. exempt per G.3</p> <p>.e – threaded connections, flanges are exempt or subject to annual inspection</p> <p>.f – Insp. sch to be followed</p>	<p>6.1.3.2.1 - # of components subject to rule (component type and service)</p> <p>.2 - # of major, inaccessible, UtoM, critical & essential components subject to the rule and their justification</p> <p>.3 – Location of above components</p> <p>.4 – Justification for exempt components</p> <p>6.1.3.3 – Sch of inspection w/description of each facility</p>		<p>(c) – Fugitive Emission Monitoring Plan:</p> <p>(1) – Frequency for conducting surveys</p> <p>(2) – Technique (M21, OGI, etc.)</p> <p>(3) – Manufacturer/Model of M21 detector</p> <p>(4) – Procedure/timeframe for repairs (30 days/2 years)</p> <p>(5) – Procedure/timeframe for verifying repairs</p> <p>(6) – Records required and retention time</p> <p>(7) – OGI requirements</p> <p>(8) – Verify M21 @ 500 ppm resolution and M21 compliant procedure</p> <p>(d) – Plans must include:</p> <p>(1) – Sitemap</p> <p>(2) – OGI observation path</p> <p>(3) – M21 comp to be monitored</p> <p>(4) – Written plan</p>

<p>.g – I.D./location of hazard for APCD personnel .h – I.D. of unmanned facilities</p> <p>.2 – Requalify G.1 or G.3 on request .3 – OMP revision per updated rule .4 – OMP revision per updated rule</p> <p>.5 – Annual OMP updates</p>	<p>.1 – I.D./location of hazard for inspector</p> <p>6.1.1 – OMP revision per updated rule</p> <p>6.1.4 – Annual OMP updates</p> <p>6.1.2 – Copy of OMP on-site and available on request 6.1.3.4 – Specify who will conduct compliance inspection 6.1.3.5.1-3 – Develop employee training program</p>		<p>(e) – Monitoring survey shall observe each component (f) – Leaks repaired per CTG (30 days/2 years) and resurveyed 30 days after repair/replacement</p>
<p><u>F – Operator Repair Requirements</u></p> <p>F.1 – Component leaks minimized w/in 1 hour or w/in next normal business day</p> <p>.2 – Non-critical component repaired per Table 1, below</p>	<p>5.3.4 – Leaks minimized no later than one hour after detection</p> <p>5.3.5 – If repaired leak exceeds std shall be repaired per Table 1, below by: 5.3.5.3 – Repair/replace component</p>	<p>(g)(1) – Repair, replace remove leaking component per Table 1, below (g)(2) – Replace w/BACT/BARCT component subjected to 5 repair actions in 12 month period - leak >3 drops/min - leak >10kppm - >200 ppm, for PRD</p>	<p>I.2.f.1 – (Non-critical) Repaired/replaced ASAP but no later than 30 days after detection</p>

<p>.3 – Inspect repaired/replaced comp per M21 as soon as practical but no later than one month</p> <p>.6 – Critical component major gas leak from compressor seal, pump seal, PRV, valve repair per BACT at shutdown or 1 yr, whichever comes first - gas leaks <50kppm or minor liquid leaks from compressor seal, pump seal, PRV, valve repair at shutdown or 1 yr, whichever comes first - Operator notify APCD in writing w/in 3 months detecting major gas leak that cannot be repaired per Table 1</p> <p>.7 – Compressor seal, pump seal, PRV, valve 5 major gas leaks w/in 12 months operator replace w/BACT at shutdown or 1 yr, whichever comes first</p>	<p>.4 – Vent to closed system .5 – Remove from operation</p> <p>5.2.13 – Except PRV listed in 5.2.12, inspect repaired/replaced component per M21 w/in 15 calendar days .14 – District inspection does not replace mandatory operator inspection .15 – Extended repair periods for Rig-up ops</p> <p>5.3.6 – Critical component leak: .1 – minimize leak w/in one hour .2 – repair at turnaround or 1 yr, whatever comes first</p>		<p>I.2.f.2 – (Critical comp) Repaired/replaced at shutdown or 2 years whichever is earlier</p>
<p>H – Recordkeeping Requirements H.1 – Maintain inspection log .a – Location, type, description, name of each leaking component that cannot be repaired</p>	<p>6.2.1 – Maintain inspection log .1 – Total # of components inspected w/total number of leaks and % by</p>		<p>I.5(a) – Maintain following for 5 years: (1) – Fugitive monitoring plan per I.2(b),(c),(d) – see above</p>

<p>.b – Liquid leaks cannot be repaired date, time and major/minor</p> <p>.c – Gaseous leaks cannot be repaired date, time, ppm, major/minor</p> <p>.d – Date of repair/replacement, description of repair, date of re-inspection</p> <p>.e – I.D. of critical component leak</p> <p>.f – Maintenance/calibration records of M21 analyzer</p> <p>.2 – Functional pressure relief:</p> <p>.a – Location, unit I.D., date</p> <p>.b – Date of pressure relief, ppm</p> <p>.3 – Inspection log maintained 2 years</p> <p>.4 – Inspection log upon request</p>	<p>component type (concentration?)</p> <p>.2 – Location, type, name leaking component</p> <p>.3 – Date/method of leak detection</p> <p>.4 – Gaseous leak: ppm, Liquid leak: major/minor</p> <p>.5 – Date of repair/replacement/removal of component</p> <p>.8 – Date of re-insp. and ppm of repaired component</p> <p>.6 – I.D./location of critical/essential comp that cannot be repaired immediately</p> <p>.7 – Method used to minimize critical/essential comp leak</p> <p>6.2.3 – Calibration info for M21 analyzer</p> <p>.4 – Records maintained 5 years</p> <p>.2 – Inspection log upon request</p> <p>6.2.1.9 – Inspector name, address, phone</p>		<p>(2) – Monitoring survey records including:</p> <p>(i) – Date of survey</p> <p>(ii) – Beginning/end time of survey</p> <p>(iii) – Name of operator performing survey</p> <p>(iv) – Monitoring instrument used</p> <p>(v) – OGI video/photo</p> <p>(vi) – Comp I.D. when using M21</p> <p>(vii) – Temp, sky cond., wind speed</p> <p>(viii) – Any deviations from monitoring plan</p> <p>(ix) – Documentation of each fugitive emission:</p> <p>(A) – Location</p> <p>(B) – Any deviations from monitoring plan</p> <p>(C) – Number/type of comp where fugitive emissions detected</p> <p>(D) – Number/type of DtoM and UtoM comp monitored (EPA TSD rule deficiency – maintain list of UtoM equipment)</p> <p>(E) – M21 reading for each leaking comp requiring repair</p> <p>(F) – Number/type comp not repaired</p> <p>(G) – Number/type comp not repaired and tagged</p> <p>(H) – Photo/video of untagged/unrepaired comp</p> <p>(I) – Repair methods applied to each attempt to repair</p> <p>(J) – Number/type comp placed under delay to repair and justification</p> <p>(K) – Date of repair</p>
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	<p>.10 – Facility operator sign/date log certifying accuracy</p>		<p>(L) – Inst used to reinspect comp that could not be repaired at initial fugitive emissions survey (3) – Fugitive survey temp exemption (0 deg) (4) – Well site w/gas/oil (g/o) ratio <300 scf: (A) – Record of g/o ratio (B) – Location and USWID # of well (C) – Record of determination signed by certifying official 1.5(b) – Submittal of annual reports of fugitive emission surveys including: (1) – Date of survey (2) – Beginning/end time of survey (3) – Name of operator performing survey (4) – Ambient temp, sky cond., wind speed (5) – Monitoring instrument used (6) – Any deviations from monitoring plan (7) – Number/type comp where leaks detected (8) – Number/type comp not repaired (9) – Number/type of DtoM and UtoM comp monitored (10) – Date of repair (11) – Number/type comp placed under delay to repair and justification (12) – Inst used to reinspect comp that could not be repaired at initial fugitive emissions survey</p>
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Attachment #2 - Leak Repair Period (in days) Comparison Chart

Attachment #2

Leak Repair Period (in days) Comparison Chart

Type of Leak (Leak Rate)	VCAPCD – Rule 74.10	SJVAPCD – Rule 4409	SCAQMD – Rule 1173 & 463	EPA CTG (+EPA TSD)	CARB GHG
	Onshore/ Offshore				
Minor Gas Leak (1k ppmv – 9,999 ppmv)	14/ 14	7 (500ppmv to 9,999ppmv after 06/30/24)	Light Liquid Gas Leak (>500 ppmv to 10k ppmv) 7	Any Fugitive Emission per OGI or Leak => 500ppmv As Soon As Practical but no later than 30 1 st attempt per 40 CFR Part 60 Subpart VVa 5	First Attempt 5 Successful Repair 14
Major Gas Leak (10k ppmv – 50k ppmv)	5/ 5	3	Any Gas Leak (>10k ppmv to 25k ppmv) 2	-	5
Major Gas Leak (>50k ppmv)	1/ 5	1	Any Gas Leak (>25k ppmv) 1	-	2
Major Liquid Leak (>3 drops/min)	1/ 5	1	1	-	-
Minor Liquid Leak (<3 drops/min)	2/ 5	1	-	-	-
PRD (>200 ppmv – 25k ppmv)	-	-	2	-	-
Critical Comp / Critical Process Units	Shutdown or 1 year	Turnaround or 1 year	-	-	Shutdown or 12 months

Attachment #3 – Existing and Proposed Repair Periods

Attachment #3

Rule 74.10.F, Table 1 (EXISTING)

Table 1. REPAIR PERIODS

Type of Leak	Time Period (days) ^a	
	Onshore	Offshore
Minor Gas Leak (1,000 to 10,000 ppm)	14	14
Major Gas Leak (10,000 to 50,000 ppm)	5	5
Major Gas Leak (>50,000 ppm)	1 ^{b, c, d}	5 ^d
Major Liquid Leak	1 ^{b, c}	5
Minor Liquid Leak	2 ^b	5

^a Day means a 24-hour period starting at time of leak detection for liquid leaks and starting at time of leak measurement for gas leaks. For 5- or 14-day deadlines only, the deadline shall be at midnight on the fifth or fourteenth day, respectively.

^b Unless prohibited by Cal OSHA standards or 29 CFR 1910.

^c Components at oil and gas production facilities shall be repaired within two days of leak detection for liquid leaks and within two days of leak measurement for gaseous leaks.

^d The repair period may be extended for noncritical components having major leaks (> 50,000 ppm) if the component is removed from service until repaired.

Rule 74.10.F, Table 1 (PROPOSED)

Table 1. REPAIR PERIODS

Type of Leak	Time Period (days) ^a
Minor Gas Leak (≥ 500 to $< 10,000$ ppmv)	7
Major Gas Leak ($\geq 10,000$ to $< 50,000$ ppmv)	3
Major Gas Leak ($\geq 50,000$ ppmv)	1 ^{b, c}
Minor or Major Liquid Leak	1 ^{b, c}

^a Day means a 24-hour period starting at time of leak detection for liquid leaks and starting at time of leak measurement for gas leaks. For 3- or 7-day deadlines only, the deadline shall be at midnight on the third or seventh day, respectively.

^b Unless prohibited by Cal OSHA standards or 29 CFR 1910.

^c The repair period may be extended for noncritical components having major leaks ($\geq 50,000$ ppmv) if the component is removed from service and isolated until repaired.

Attachment #4 - Rule Exemptions Comparison Chart (74.10 vs. CARB GHG)

Attachment #4

Rule Exemptions Comparison Chart (74.10 vs. CARB GHG)

Rule 74.10	CARB GHG – 95669
G.1.a – ROC 10% by weight or less .b – NGPP ROC 1% by weight or less .c – ROC 10% by weight or less .d – Underground components .e – Fluid weight evaporated is 10% or less at 150 deg C	- - - 95669(c)(5) -
.2 – Operator inspection requirements do not apply to: .a.1 & .2 – Pump/compressor seals, PRV’s directed to fuel/sales gas or flare or ROC removal @ 90% .b – =/< ½” stainless fittings determined to be leak free .c – Comp in vacuum service .d – Flanges/ threaded connections designated in OMP subject to zero leak threshold	- - Removed from revised GHG & SJVAPCD – Also cited as rule deficiency in EPA TSD 95669(c)(7) -
.3 – Operator inspection requirements in D.1, D.2, D.4 & D.5 not apply to: .a – Liquid w/API Gravity of 20 deg or less at primary separation .b – Liquid w/API Gravity 20-30 deg at: .1 – D-stream of wellhead equipped w/casing VR @ <10 psig .2 – Primary separation of oil/gas provided separation w/ vapor recovery <25 psig	95669(c)(2) - - -
.4 – Owner petition for exemption from F.6 (Crit comp BACT) & F.7 (5leaks/12mos BACT): .a – Cost effectiveness evaluation .b – Documentation of cost info	- -

Attachment #5 – Rule Exemptions and Repair Requirements Comparison Chart
(CARB GHG, Rule 74.10 and SJVAPCD Rule 4409)

Attachment #5

Rule Exemptions and Repair Requirements Comparison Chart

(CARB GHG, Rule 74.10 and SJVAPCD Rule 4409)

CARB GHG LDAR – 95669	Rule 74.10	SJVAPCD – Rule 4409
(c)(2) – API Gravity <20 averaged annually	Added (G.1.h)	
(3) – Components on produced water lines: (A) – Controlled via vapor recovery (B) – Controlled via floating roof (C) – Meets 95668(a)(2): <50 BPD oil/condensate and <200 BPD produced water (D) – Emission rate =/< 10 mt methane per flash analysis	Added (G.1.g) Added (G.1.g) - -	4623 4623 - -
(4) – NG dist. pipelines not part of oil production facility	Added (G.2.c)	+/-4.2.9
(5) – Underground components	G.1.a	4.2.3
(6) – Components used to supply compressed air	Added (G.1.c)	-
(7) – Components under negative pressure	G.1.b	4.2.8
(8) – Components not owned/operated by production facility	Added (G.1.f)	-
(9) – Temporary comp for gen maintenance <300 hrs/yr	Added (G.3.b)	+/-5.2.15
(10) – Well casing vents open to atmosphere	Prohibited per 71.1	-
(11) – Components on steam injection or waterflood wells	Added (G.1.g)	-
(12) – Pneumatic controllers using air or electricity to operate	Added (G.1.d)	-
(13) – Compressor rod packing subject to annual emission flow rate testing	-	-
(14) – Components assoc. w/drill/completion/maintenance	Added (G.3.a)	+/-5.2.15
(d) – Insp/repair all non-exempt components tanks, separator, active/idle wells and pressure vessels: (1) – Facility specific leak detection/repair plan, updated annually (A) – Procedures to comply with M21 (B) – Sitemap (C) – List of equipment to be monitored including ID # or description (D) – List of components to be monitored and method of location (tagging, etc.) (E) – List of eqpt/comp inaccessible/unsafe w/explanation (F) – Equipment list w/frequency for survey (G) – Equipment list w/repair timeframes for leaks of different sizes	F E D Added (E.1.a.1) E.1 E.1.a Added (E.1.f & .h) D & Table 1 D & Table 1	- 6.0 6.2.3 - 6.0 6.0 6.1.3.2.2 - -
(e) – CARB EO may perform inspection at any time to determine compliance	Rule 8/H&SC 41510	-
(f) – A/V inspect hatches, PRV’s, well casings, stuffing boxes, pump seals every 24hrs or (unmanned) every week (1) – A/V inspect all pipes/pipelines w/in facility boundary every 12 months (2) – Records of A/V inspections made available to CARB EO upon request	D.2.a & .b Added (D.5 - Qtly) Added (H.4 – Ann)	5.1.1&.2 5.2.8 -

<p>(n) – Component incurs 5 repair actions w/in a continuous 12 month period shall be replaced per BACT and re-tested per M21</p> <p>(1) – Comp replaced re-tested per M21 w/in 30 days</p> <p>(2) – Delay of repair may be granted per 95670.1</p> <p>(3) – Log of replacement maintained at facility made available to CARB EO upon request</p>	<p>F.9 – Applicable to compressor/pump seal, PRV or valve only</p> <p>D.4 – Upon return to service</p> <p>-</p> <p>H.1.e & H.3</p>	<p>5.3.7</p> <p>5.2.13(15days)</p> <p>5.3.5</p> <p>-</p>
<p>(o) – Compliance w/leak detection & repair requirements:</p> <p>(1) – Following provisions apply to inspections conducted by CARB EO:</p> <p>(A) – No facility shall exceed number of allowable leaks specified in Table 2 per M21</p> <p>(B) – No component leak shall exceed \geq 50 kppm per M21</p> <p>(C) – Failure of owner/operator to repair leaks within timeframes specified constitute a violation</p> <p>(2) – Following provisions apply to inspections conducted by owner/operator:</p> <p>(A) – Failure of owner/operator to repair leaks within timeframes specified constitute a violation</p> <p>(B) – Leaks discovered during owner/operator inspections shall not be in violation if repaired within time frames specified</p>	<p>J, also Attachment 1 – Uses component description, not leak concentration (see below)</p> <p>Added (Table 1)</p> <p>J</p> <p>J</p> <p>J</p> <p>J</p>	<p>5.1.4.4</p> <p>5.1.4.3</p> <p>5.1.3.1.1</p> <p>5.1.3.2</p> <p>5.1.3.2</p> <p>5.1.3.2</p>

Attachment #6 – Existing and Proposed Component Leak Thresholds

Attachment #6

Rule 74.10, "Attachment #1" (EXISTING)

COMPONENT LEAK THRESHOLDS

This Attachment defines the leak thresholds for the operating requirements in Subsection C.2.

NO. OF COMPONENT	COMPONENTS INSPECTED	MAXIMUM NUMBER OF MAJOR GAS LEAKS OR LIQUID LEAKS	Effective Date
Hatches		0	9/22/87
Open Ended Lines		0	9/22/87
Flanges or Threaded Connections (If designated in the Operator Management Plan as exempt from inspection requirements)		0	9/22/87
Valves 250 or less (not open ended)	5 More than 250	9/22/87 2% of number of components inspected	9/22/87
Other Components	200 or less More than 200	2 1% of number of components inspected	9/22/87 9/22/87

*Other components in Attachment 1 are all components (including flanges and threaded connections not exempt from operator inspection requirements) except polished rod stuffing boxes, dump lever arms, hatches, valves, and open-ended lines.

Rule 74.10, "Attachment #1" (PROPOSED)

ATTACHMENT 1
COMPONENT LEAK THRESHOLDS

This Attachment defines the leak thresholds for the operating requirements in Subsection C.2.

Leak Rate	Leak Threshold - ≤200 Comp Insp	>200 Comp Insp
Minor Gas Leak – ≥500 to <10,000 ppmv	5	2% of total inspected
Major Gas Leak – ≥10,000 to <50,000 ppmv or Minor Liquid Leak	2	1% of total inspected
Major Gas Leak – ≥50,000 ppmv or Major Liquid Leak	0	0
Major Gas Leak – ≥10,000 ppmv or Any Liquid Leak from a Hatch or Open-ended Line	0	0

Attachment #7 – WSPA Comment Letter



Ben Oakley

Manager – California Coastal Region

September 27, 2023

Ventura County Air Pollution Control District
4567 Telephone Road, 2nd Floor
Ventura, CA 93003

VIA EMAIL

Re: PROPOSED AMENDMENTS TO RULE 71, CRUDE OIL AND REACTIVE ORGANIC COMPOUND LIQUIDS AND RULE 74.10, COMPONENTS AT CRUDE OIL AND NATURAL GAS PRODUCTION AND PROCESSING FACILITIES

To Whom It May Concern,

The Western States Petroleum Association (WSPA) is a non-profit trade association representing companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas, and other energy supplies in California and four other western states, including oil and gas producers in the County of Ventura. WSPA and its associated companies appreciate the opportunity to comment on these Ventura County Air Pollution Control District (VCAPCD) proposed rule amendments. WSPA understands that VCAPCD is proposing to amend Rule 74.10, Components at Crude Oil and Natural Gas Production and Processing Facilities to implement Best Available Retrofit Control Technology (BARCT) in accordance with California Assembly Bill 617, thereby reducing emissions from crude oil and natural gas production and processing equipment. Rule 71, Crude Oil and Reactive Organic Compound Liquids is being revised to address the changes of Rule 74.10 and to align with CARB's Oil and Gas GHG Regulation.

After WSPA's review of the proposed rule amendments and attending VCAPCD's public workshop, the following comments, suggestions, and concerns are presented to the VCAPCD:

1 BARCT RULE DEVELOPMENT AND TRANSPARENCY

- BARCT is defined in the CA Health and Safety Code as “an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source.” It is required in conditions of AB 617 that prior to adopting rules or regulations to meeting the requirements for BARCT, a District shall identify multiple control options, assess the emissions reductions and cost-effectiveness of the control options, and present these in a public meeting. (CHSC §40920.6)
- The VCAPCD has not yet provided information that identifies other control options to achieve BARCT, an inventory of emissions that are not currently meeting the BARCT limitations and an evaluation of feasibility and cost-effectiveness. WSPA believes this information should be made available.
- Other California air districts have developed publicly available staff reports on proposed BARCT-driven rule amendments, which address the items above and give insight into

the details, research, and decisions that went into the rule development process. WSPA believes this documentation and transparency is needed for these rules.

REVISED RULE 74.10 REQUIREMENTS CLARIFICATION

- 2 • It is unclear if Section C.2, applies to owner-performed inspections or District performed inspections. It may be interpreted that any leak > 50,000ppm would be a violation upon detection. It is unclear how this requirement helps achieve BARCT.
- 3 • It is unclear if open-ended lines that are not leaking are subject to Section C.3. Attachment 1 infers that only leaks > 10,000 ppm apply to open-ended lines.
- 4 • Regarding Section D.2, it is unclear why hatches were added to this inspection requirement. This would mean a lot of work for operators to climb the tanks each day and there is no easy way to inspect hatches without a Method 21 device. Additionally, many oil and gas operators have dozens of portable tanks across multiple locations, each would have to be inspected daily per this requirement.
- 5 • The wording of Section D.4 was found to be confusing and potentially in conflict. An operator can re-inspect for leaks with or without Method 21 but then also must use Method 21 as soon as practical.
- 6 • It is unclear if Section D.5 includes tank Varecs (pressure-vacuum valves). In the past many operators have not considered Varecs to be PRVs. It may cause issues because Varecs are designed to both breathe and vent. A potential solution is to add to the definition of "pressure relief valve" in Section K that pressure-vacuum valves on tanks/vessels are not included.
- 7 • As a suggestion, Section D.9. could be combined with Section D.7.d to consolidate the discussion around optical gas imaging.
- 8 • Regarding Sections E.1.e and E.1.f., it is unclear what is required to "justify" an unsafe to monitor or inaccessible component.
- 9 • Justification is required by the District for reducing the repair time periods in Table 1 and whether it helps achieve BARCT.
- 10 • As a suggestion, Section F.5 seems similar to Section C.5, and potentially could be combined.
- 11 • It is unclear what detection limit is required for a one-day repair in Section F.5.
- 12 • It is unclear why Section F.7 was added to shorten the notification period from 3 months to only 14 days from detection. This reduced timeframe could make it difficult to comply with this condition.
- 13 • It is unclear which stage of separation Section G.1.g refers to, whether it is produced water that is post-FWKO or post ISF/Wemco.

- 14 • Section H.1.a that requires every leak >500 ppm be included in the leak log will result in significantly more recordkeeping because the majority of leaks identified are repaired immediately.
- 15 • Regarding Section H.1.i, it is unclear why the date and start/end time of the inspection is required. Leak logs already identify the date/time of each leak.
- 16 • It is unclear what “vacuum release” refers to in Section H.2. By nature, PRVs do not have vacuum or negative pressure and additionally there would be no release of gas/vapor under vacuum conditions.
- 17 • Regarding Section H.4, it is unclear what types of “records” this requirement is referring to. If this refers to LDAR reports, the District should provide guidance on what should be included in these reports.
- 18 • Regarding Section K.4 “Component”, a pipe or pipeline are generally not considered components. The joints between sections of pipelines like flanges or valves are typical components. Also, it is unclear if buried pipes should be included in this definition as well. Idle wells have wellheads too, so it is redundant to mention "wellheads or idle wells".
- 19 • Regarding Section K.15 “Idle Well”, this definition may not be necessary if removing “Idle Well” from Definition K.4.
- 20 • Spelling error found in Section K.26 “Natural Gas Processing Facility”, replace “unitsunless” with “units unless”.

In conclusion, we would like to thank the Ventura County Air Pollution Control District for their work in this rule development. We hope that all future rule development is comprehensive, transparent and has ample opportunity for input from stakeholders. We look forward to working with the District in the future.

If you have any questions, please contact me at (805) 714-6973 or boakley@wspa.org.

Respectfully,



Attachment #8 – District Response to Comments

BARCT RULE DEVELOPMENT AND TRANSPARENCY

1. *BARCT is defined in the CA Health and Safety Code as “an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source.” It is required in conditions of AB 617 that prior to adopting rules or regulations to meeting the requirements for BARCT, a District shall identify multiple control options, assess the emissions reductions and cost-effectiveness of the control options, and present these in a public meeting. (CHSC §40920.6)*

The VCAPCD has not yet provided information that identifies other control options to achieve BARCT, an inventory of emissions that are not currently meeting the BARCT limitations and an evaluation of feasibility and cost-effectiveness. WSPA believes this information should be made available.

Other California air districts have developed publicly available staff reports on proposed BARCT-driven rule amendments, which address the items above and give insight into the details, research, and decisions that went into the rule development process. WSPA believes this documentation and transparency is needed for these rules.

The District is developing its staff report for the proposed revisions to Rule 74.10. The revisions to Rule 74.10 are intended to harmonize the District rule with existing state and federal monitoring requirements where possible while applying the best available mitigation requirements established by other air districts in California. Where the revisions to Rule 74.10 are District implementation of existing requirements, the District believes that no additional burden on facilities. Where the revisions to Rule 74.10 exceed existing requirements, the staff report will explain how those requirements were developed and why they are appropriate.

REVISED RULE 74.10 REQUIREMENTS CLARIFICATION

2. *It is unclear if Section C.2, applies to owner-performed inspections or District performed inspections. It may be interpreted that any leak > 50,000ppm would be a violation upon detection. It is unclear how this requirement helps achieve BARCT.*

The requirements of C.2 are intended to apply to all inspections. Major gas leaks $\geq 50,000$ ppmv identified by the facility would be violations only if not repaired within the period shown in Table 1. Major gas leaks $\geq 50,000$ ppmv identified by District staff during an inspection would be violations.

3. *It is unclear if open-ended lines that are not leaking are subject to Section C.3. Attachment 1 infers that only leaks > 10,000 ppm apply to open-ended lines.*

Open-ended lines are prohibited. Facilities are required to add secondary closure to open-ended lines, such as a flange, plug, cap, or second valve. If an open-ended line is discovered by the facility, it shall be repaired as required by F.5.

4. *Regarding Section D.2, it is unclear why hatches were added to this inspection requirement. This would mean a lot of work for operators to climb the tanks each day and there is no easy way to inspect hatches without a Method 21 device. Additionally,*

many oil and gas operators have dozens of portable tanks across multiple locations, each would have to be inspected daily per this requirement.

Section D.2 does not require that inspection be performed using Method 21. Inspection can be conducted as an audio/visual inspection, with OGI, or other appropriate means.

- 5. The wording of Section D.4 was found to be confusing and potentially in conflict. An operator can re-inspect for leaks with or without Method 21 but then also must use Method 21 as soon as practical.*

Section D.4 is intended to require that equipment returned to service must be inspected with Method 21 no later than the day it is returned to service.

- 6. It is unclear if Section D.5 includes tank Varecs (pressure-vacuum valves). In the past many operators have not considered Varecs to be PRVs. It may cause issues because Varecs are designed to both breathe and vent. A potential solution is to add to the definition of "pressure relief valve" in Section K that pressure-vacuum valves on tanks/vessels are not included.*

The requirements for monitoring apply to known discharges. This requirement is consistent with monitoring requirements developed in other jurisdictions. District staff has found that Varecs and similar PRV do not always seat properly after pressure releases. Additional rule language has been added to clarify requirements for Varecs and similar devices.

- 7. As a suggestion, Section D.9. could be combined with Section D.7.d to consolidate the discussion around optical gas imaging.*

The District will consider this consolidation.

- 8. Regarding Sections E.1.e and E.1.f., it is unclear what is required to "justify" an unsafe to monitor or inaccessible component.*

"Unsafe" is defined in K.44, and "Inaccessible component" is defined in K.17. The plan should describe how the component meets the elements of these definitions.

- 9. Justification is required by the District for reducing the repair time periods in Table 1 and whether it helps achieve BARCT.*

Other air districts and jurisdictions have reduced the allowable repair times for leaks in their jurisdictions. The repair times in Table 1 have been revised to be in line with the jurisdictions of other districts. The repair time for minor leaks has been revised.

- 10. As a suggestion, Section F.5 seems similar to Section C.5, and potentially could be combined.*

Section C.5 includes the prohibition on facilities having open-ended lines. Section F.5 includes the requirements for mitigating open-ended lines when discovered. As such, the District believes each section is appropriate.

- 11. It is unclear what detection limit is required for a one-day repair in Section F.5.*

There is no detection limit in Section F.5 because open-ended lines are prohibited.

12. It is unclear why Section F.7 was added to shorten the notification period from 3 months to only 14 days from detection. This reduced timeframe could make it difficult to comply with this condition.

Required notification periods aid the District in enforcing the requirements of this regulation. The proposed notification period has been revised from 14 days to 30 days.

13. It is unclear which stage of separation Section G.1.g refers to, whether it is produced water that is post-FWKO or post ISF/Wemco.

The exemption in Section G.1.g applies to the components handling the produced water.

14. Section H.1.a that requires every leak >500 ppm be included in the leak log will result in significantly more recordkeeping because the majority of leaks identified are repaired immediately.

The District believes that the added recordkeeping requirements are part of the best available mitigation techniques for these sources as described in the Control Techniques Guidance developed by the EPA. The additional recordkeeping will aid the District in enforcement of the rule requirements.

15. Regarding Section H.1.i, it is unclear why the date and start/end time of the inspection is required. Leak logs already identify the date/time of each leak.

Noting the start and end of the inspection will aid the District in reviewing the inspection reports and in enforcing the rule requirements.

16. It is unclear what "vacuum release" refers to in Section H.2. By nature, PRVs do not have vacuum or negative pressure and additionally there would be no release of gas/vapor under vacuum conditions.

The District expects the requirements of Section H.2 to apply to pressure releases at pressure release valves, but requires that facilities record the release of vacuum when components are not exempted for operating under vacuum conditions and document in the Plan.

17. Regarding Section H.4, it is unclear what types of "records" this requirement is referring to. If this refers to LDAR reports, the District should provide guidance on what should be included in these reports.

The requirements of Section H.4 apply to the records required by Section H, test results required by Section H, and the Operator Management Plan. This recordkeeping requirement is consistent with the Control Techniques Guidance developed by the EPA.

18. Regarding Section K.4 "Component", a pipe or pipeline are generally not considered components. The joints between sections of pipelines like flanges or valves are typical components. Also, it is unclear if buried pipes should be included in this definition as

well. Idle wells have wellheads too, so it is redundant to mention "wellheads or idle wells".

Existing state LDAR requirements define pipes as a component for purposes of monitoring requirements. The District chooses to maintain consistency with that definition. Buried pipes are defined as "components" as part of K.4 but are exempt from the requirements of this rule per Section G.1.a. The District chooses to make it explicit that wellheads and idle wells are included in this rule.

19. Regarding Section K.15 "Idle Well", this definition may not be necessary if removing "Idle Well" from Definition K.4.

The District chooses to make it explicit that idle wells are included in this rule.

20. Spelling error found in Section K.26 "Natural Gas Processing Facility", replace "unitsunless" with "units unless".

The error will be corrected in the final version of the rule.