CIPA Comments on DRAFT: February 23, 2016

California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 10 Climate Change, Article 4

PROPOSED REGULATION ORDER

Subarticle 13: Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities

§ 95665. Purpose and Scope.

The purpose of this article is to establish greenhouse gas emission standards for crude oil and natural gas facilities identified in section 95666. This article is designed to serve the purposes of the California Global Warming Solutions Act, AB 32, as codified in sections 38500-38599 of the Health and Safety Code.

NOTE: Authority cited: Sections 38510, 38562, 39600, 39601 and 41511, Health and Safety Code. Reference: Sections 38560, 39600 and 41511, Health and Safety Code.

§ 95666. Applicability.

(a) This article applies to owners or operators of equipment and components listed in section 95668 located within California, including California waters, that are associated with facilities in the sectors listed below, regardless of emissions level:

(1) Onshore and offshore crude oil or natural gas production; and,
(2) Crude oil, condensate, and produced water separation and storage; and,
(3) Natural gas underground storage; and,
(4) Natural gas gathering and boosting stations; and,
(5) Natural gas processing plants; and,
(6) Natural gas transmission compressor stations.

(b) Owners and operators must ensure that their facilities, equipment, and components comply at all times with all requirements of this subarticle, including all of the standards and requirements identified in section 95668. Owners and operators are jointly and severally liable for compliance with this subarticle.

NOTE: Authority cited: Sections 38510, 38562, 39600, 39601 and 41511, Health and Safety Code. Reference: Sections 38560, 39600 and 41511, Health and Safety Code.

§ 95667. Definitions.

Comment [JC1]: Several definition are inconsistent with MRR and Subpart W.

§ 95668. Standards.

(a) *Crude Oil, Condensate, and Produced Water Separation and Storage*

(1) Except as provided in section 95668(a)(2), the requirements in sections 95668(a)(3) though (9) apply to pressure vessels, separators, tanks, and sumps at facilities listed in section 95666:.

(2) The requirements of this subsection do not apply to the following:

(A) Pressure vessels, separators, tanks, and sumps that have not contained crude oil, condensate, or produced water for at least 30 calendar days.

(B) Tanks used for temporarily separating, storing, or holding emulsion, crude oil, condensate, or produced water from any newly constructed well for up to 30 calendar days following initial production from that well but only if the tank is not used to circulate liquids from a well that has been subject to a well stimulation treatment.

(3) Beginning January 1, 2017, pressure vessels not already subject to a district leak detection and repair program shall comply with the leak detection and repair requirements specified in section 95669.

Comment [JC2]: The 2017 dates provide very short lead time. See letter. Comment is applicable all 2017 dates.

(4) Beginning January 1, 2017 and by no later than September 1, 2017, owners or operators of new and existing separator and tank systems which are not controlled for emissions with the use of a vapor collection system shall conduct annual flash analysis testing of the crude oil, condensate, or produced water as described below.

(A) Conduct flash analysis testing in accordance with the ARB Test Procedure for Determining Annual Flash Emission Rate of Methane from Crude Oil, Condensate, and Produced Water as described in Appendix C.

Comment [JC3]: This method is not the same required under MRR, therefore two sets of flash testing needs to be done to satisfy the two regulations. Should be identical or MRR should allow this test.

(B) Sum the annual flash analysis testing results for methane for the crude oil, condensate, and produced water.

(C) Maintain a record of flash analysis testing as specified in section 95671 and report the results to ARB as specified in section 95672.

(D) Demonstrate that the results of the flash analysis testing are representative of the crude oil, condensate, and produced water processed or stored in the separator and tank system. The ARB Executive Officer may request additional flash analysis testing or information in the event that the test results reported do not reflect representative results of similar systems.

Comment [JC4]: How does an entity demonstrate? What it is being compared to? Intra facility or inter-facility? " Can this trigger further testing? Can this be a source of an enforcement action?

(5) Beginning January 1, 2018, owners or operators of separator and tank systems with a measured annual flash emission rate greater than 10 metric tons per year of methane shall control the emissions from the separator and tank system with the use of a vapor collection system as specified in section 95668(c).

Comment [JC5]: See implementation commen in letter.

Comment [JC6]: Unclear that testing is only required on first 1 or 2 tanks in a system

(6) Beginning January 1, 2018, separators, tanks, and covered sumps subject to the vapor collection system requirements specified in section *95668(a)(6)* shall comply with the leak detection and repair requirements specified in section 95669.

(7) Owners or operators of separator and tanks systems with a flash emission rate less than or equal to 10 metric tons per year of methane shall conduct flash analysis testing and reporting annually. If the results of flash analysis testing are less than or equal to 10 metric tons per year of methane using three

consecutive years of test results the owner or operator may reduce the frequency of testing and reporting to once every five years.

Comment [JC7]: Need further clarity

(8) Flash analysis testing, record keeping, and reporting shall be conducted within one calendar year of adding a new well to the separator and tank system since the time of previous flash analysis testing.

(9) Flash emissions shall be recalculated if the annual crude oil, condensate, or produced water throughput increases by more than 10 percent since the time of the previous flash analysis testing provided that the increase in throughput is not a result of adding a new well to the separator and tank system which requires additional flash analysis testing as specified in section 95668(a)(8).

(A) The owner or operator shall maintain and make available upon request by the ARB Executive Officer a record of the revised flash emission calculation.

(b) *Circulation Tanks for Well Stimulation Treatments*

(1) Beginning January 1, 2018, circulation tanks used in conjunction with well stimulation treatments used at facilities listed in section 95666 shall be controlled for emissions of natural gas according to one of the following methods:

(A) The circulated liquids shall be controlled for emissions of natural gas prior to entering the circulation tank using a pressure vessel or separator and a vapor collection system as specified in section 95668(c) and the circulation tank shall be covered and comply with the leak detection and repair requirements specified in section 95669; or,

(B) Circulation tanks shall be covered and controlled for emissions of natural gas using a vapor collection system as described in section 95668(c) and the tank shall comply with the leak detection and repair requirements specified in section 95669.

(c) *Vapor Collection Systems and Vapor Control Devices*

(1) Beginning January 1, 2018, the following requirements apply to equipment at facilities listed in section 95666 that are subject to the vapor collection system and control device requirements specified in this subarticle:

(2) Unless section 95668(c)(3) applies, the vapor collection system shall direct the collected vapors to one of the following:

(A) Existing sales gas system; or,
(B) Existing fuel gas system; or,

(C) Existing underground injection well not currently under review by the Division of Oil and Gas and Geothermal Resources.

(3) If no existing sales gas system, fuel gas system, or underground injection well specified in section 95668(c)(2) is available at the facility, the owner or operator must control the collected vapors as follows:

(A) For facilities without an existing vapor control device installed at the facility, the owner or operator must install a new vapor control device as specified in section 95668(c)(4); or,

(B) For facilities currently operating a vapor control device and which are required to control additional vapors as a result of this subarticle, the owner or operator must replace the existing vapor control device with a new vapor control device as specified in section 95668(c)(4) to control all of the collected vapors.

(4) Any vapor control device required in section 95668(c)(3) must meet the following requirements:

(A) If the vapor control device is to be installed in a region classified as in attainment with all state or federal ambient air quality standards, the vapor control device must achieve at least 95% vapor control efficiency of total emissions and must meet all applicable federal, state, and local air district requirements; or,

(B) If the vapor control device is to be installed in a region classified as non-attainment with, or which has not been classified as in attainment of, all state and federal ambient air quality standards, the owner or operator must install one of the following devices that meets all applicable federal, state, and local air district requirements:

1. A non-destructive vapor control device that achieves at least 95% vapor control efficiency of total emissions and does not result in emissions of nitrogen oxides (NOx); or,

2. A vapor control device that achieves at least 95% vapor control efficiency of total emissions and does not generate more than 15 parts per million volume (ppmv) NOx when measured at 3% oxygen.

(5) If the collected vapors cannot be controlled as specified in section 95668(c)(2) through (4), the equipment subject to the vapor collection and control requirements specified in this subarticle may not be used or installed and must be removed from service by January 1, 2018.

(6) Vapor collection systems and control devices are allowed up to 30 calendar days per year for maintenance. A time extension to perform maintenance not

Comment [JC8]: This isn't clear. Approved wells?

Comment [JC9]: Unclear

Comment [JC10]: Is this necessary? Does it allow for CARB/District to issue NOV for other applicable requirements. CARB/District should n enforce non AQ requirements.

Comment [JC11]: See above comment.

Comment [JC12]: Unclear.

to exceed 14 calendar days may be granted by the ARB Executive Officer. The owner or operator is responsible for maintaining a record of the number of calendar days per calendar year that the vapor collection system or vapor control device is out of service and shall provide a record of such activity at the request of the ARB Executive Officer..

(A) If an alternate vapor control device compliant with this section is installed prior to conducting maintenance and the vapor collection and control system continues to collect and control vapors during the maintenance operation, the event does not count towards the 30 calendar day limit.

(B) Vapor collection system and control device shutdowns that result from utility power outages are not subject to enforcement action provided the equipment resumes normal operation as soon as normal utility power is restored. Vapor collection system and control device shutdowns that result from utility power outages do not count towards the 30 calendar day limit for maintenance.

(d) *Reciprocating Natural Gas Compressors*

(1) The following requirements apply to reciprocating natural gas compressors at crude oil or natural gas production facilities listed in section 95666 which are not covered under section 95668(d)(2):

(A) Beginning January 1, 2017, components on driver engines and compressors shall comply with the leak detection and repair requirements specified in section 95669.

Comment [JC13]: Do we need a definition?

(B) Beginning January 1, 2017, for any compressors without a vapor collection system used to control the rod packing or seal vent gas, the rod packing or seal shall comply with the leak detection and repair requirements specified in section 95669; and,

(C) The owner or operator shall maintain a record of the rod packing or seal leak concentration measurement as specified in Appendix A, Table 5.

(D) A reciprocating natural gas compressor with a rod packing or seal leak concentration measured above the minimum standard specified in section 95669 and which has been approved by the ARB Executive Officer as a critical component as specified in section 95670, shall be successfully repaired by the end of the next process shutdown or within 180 calendar days from the date of the initial leak concentration measurement, whichever is sooner.

(2) The following requirements apply to reciprocating natural gas compressors at natural gas gathering and boosting stations, processing plants, transmission

compressor stations, and underground natural gas storage facilities listed in section 95666 and which are not covered under section 95668(d)(1):

(A) Beginning January 1, 2017, components on driver engines and compressors shall comply with the leak detection and repair requirements specified in section 95669.

(B) Beginning January 1, 2017, any compressor without a vapor collection system used to control the rod packing or seal vent gas shall be equipped with a meter or instrumentation that can measure the rod packing or seal emissions flow rate; or,

(C) The compressor shall be equipped with a clearly identified access port installed in the rod packing or seal vent stack at a height of no more than six (6) feet above ground level for making individual or combined rod packing or seal emission flow rate measurements; and,

Comment [JC14]: By when?

(D) The rod packing or seal emissions flow rate shall be measured annually by direct measurement (high volume sampling, bagging, calibrated flow measuring instrument) while the compressor is running at normal operating temperature.

Comment [JC15]: Clarify potential for inexpensive measurement techniques?

(E) Beginning January 1, 2018, a compressor with a rod packing or seal with a measured emission flow rate greater than two (2) standard cubic feet per minute (scfm), or a combined rod packing or seal emission flow rate greater than the number of compression cylinders multiplied by two (2) scfm, shall be repaired or replaced within 30 calendar days from the date of the initial emission flow rate measurement.

(F) A reciprocating natural gas compressor with a rod packing or seal emission flow rate measured above the standard specified in section 95688(d)(2)(E) and which has been approved by the ARB Executive Officer as a critical component as specified in section 95670, shall be successfully repaired by the end of the next process shutdown or within 180 days from the date of the initial flow rate measurement, whichever is sooner.

(e) *Centrifugal Natural Gas Compressors with Wet Seals*

(1) The following requirements apply to centrifugal natural gas compressors with wet seals at facilities listed in section 95666:

(2) Beginning January 1, 2017, components on driver engines and compressors shall comply with the leak detection and repair requirements specified in section 95669.

(3) Beginning January 1, 2017, any compressor without a vapor collection system used to control the wet seal vent gas shall be equipped with a meter or instrumentation that can measure the wet seal emissions flow rate; or

(4) The compressor shall be equipped with a clearly identified access port installed in the wet seal vent stack at a height of no more than six (6) feet above ground level for making wet seal emission flow rate measurements; and,

(5) The wet seal emissions flow rate shall be measured annually by direct measurement (high volume sampling, bagging, calibrated flow measuring instrument) while the compressor is running at normal operating temperature.

(6) Beginning January 1, 2018, a compressor with a wet seal emission flow rate greater than three (3) scfm or a combined wet seal emission flow rate greater than the number of wet seals multiplied by three (3) scfm a shall control the wet seal emission vent gas with the use of a vapor collection system as specified in section 95668(c); or,

(7) Minimize the wet seal emission flow rate within 30 calendar days from the date of the initial emission flow rate measurement and replace the wet seal with a dry seal by no later than January 1, 2020.

(8) A centrifugal natural gas compressor with a wet seal emission flow rate measured above the standard specified in section 95668(e)(6) and which has been approved by the ARB Executive Officer as a critical component as specified in section 95670, shall be successfully repaired by the end of the next process shutdown or within 180 days from the date of the initial flow rate measurement, whichever is sooner.

(f) *Natural Gas Powered Pneumatic Devices and Pumps*

Comment [JC16]: Entire section needs to be tightened up.

(1) Except as provided in section 95668(f)(2), the requirements in sections 95668(f)(3) through (6) apply to natural gas powered pneumatic devices and pumps at facilities listed in section 95666:

(2) A natural gas powered pneumatic device installed prior to January 1, 2015 may be used provided it meets all of the following requirements:

(A) The device does not vent natural gas at a rate greater than 6 standard cubic feet per hour (scfh); and,

(B) The device is clearly marked with a permanent tag that identifies the vent rate as less than or equal to 6 scfh; and,

(C) The device is tested during each inspection period as specified in section 95669 by using a direct measurement method (high volume sampling, bagging, calibrated flow measuring instrument); and,

(D) A device with a measured emissions flow rate greater than 6 scfh shall be repaired or replaced within 14 calendar days from the date of the initial emission flow rate measurement.

(3) Beginning January 1, 2018, pneumatic devices shall not vent natural gas to the atmosphere and shall comply with the leak detection and repair requirements specified in section 95669..

(4) Beginning January 1, 2018, intermittent bleed pneumatic devices shall not vent natural gas when not actuating determined by testing the device when not actuating in accordance with the leak detection and repair requirements specified in section 95669.

(5) Beginning January 1, 2018, pneumatic pumps shall not vent natural gas to the atmosphere and shall comply with the leak detection and repair requirements specified in section 95669.

(6) Beginning January 1, 2018, pneumatic devices and pumps shall be retrofitted or replaced to prevent natural gas from venting to the atmosphere or shall be controlled according to one of the following methods:

(A) Collect all vented natural gas with the use of a vapor collection system as specified in section 95668(c); or,

(B) Use compressed air or electricity to operate.

(g) *Liquids Unloading of Natural Gas Wells*

(1) Beginning January 1, 2018, owners or operators of natural gas wells at facilities listed in section 95666 that are vented to the atmosphere for the purpose of liquids unloading shall perform one of the following:

(A) Collect the vented natural gas with the use of a vapor collection system as specified in section 95668(c); or,

(B) Measure the volume of natural gas vented by direct measurement (high volume sampling, bagging, calibrated flow measuring instrument); or,

(C) Calculate the volume of natural gas vented using the Liquid Unloading Calculation listed in Appendix B or according to the Air Resources Board Regulation for the Mandatory Reporting of Greenhouse Gas Emissions,

Title 17, Division 3, Chapter 1, Subchapter 10, Article 2, Section 95153(e) (February, 2015).

(2) Owners or operators must maintain and report a record of the volume of natural gas vented to perform liquids unloading as well as equipment installed in the natural gas well(s) designed to automatically perform liquids unloading (e.g., foaming agent, velocity tubing, plunger lift, etc.) once per calendar year as specified in sections 95670 and 95671 of this subarticle.

(h) Natural Gas Underground Storage Facility Well Monitoring Requirements

(1) The following requirements apply to natural gas underground storage facilities listed in section 95666:

(2) By January 1, 2017, each facility shall develop a plan for surface leak monitoring at the facility on a continuous basis or, if continuous is not feasible, a daily basis. The plan will be evaluated based on sensitivity of instrumentation, coverage of the facility, appropriateness for site, and other relevant criteria. The ARB Executive Officer will approve, in full or in part, or disapprove, in full or in part, the plans with full implementation of monitoring by January 1, 2018.

[Staff is considering a leak emission reduction requirement for large or catastrophic leaks at any oil and gas facility covered by this regulation]

§ 95669. Leak Detection and Repair

(a) The following requirements apply to components at facilities listed in section 95666 which are not already subject to a local air district leak detection and repair program.

(b) Beginning January 1, 2017, an owner or operator shall audio-visually (by hearing and by sight) inspect components for leaks at least once every 24 hours for facilities that are visited daily, or at least once per calendar week for unmanned facilities.

(c) Any audio-visual inspection that indicates a leak which cannot be repaired immediately shall be tested as specified in section 95669(f) within 24 hours after conducting the audio-visual inspection.

(d) Except as provided in section 95669(e), the requirements in sections 95669(f) through (o) apply to components at facilities listed in section 95666:

(e) Leak detection and repair requirements do not apply to the following unless required by the local air district:

Comment [JC17]: Ambiguous as to standards be met.

Comment [JC18]: This section needs to be publicly available prior to 45-day package being posted. What are the requirements? What constitu "large" or "catastrophic"? Should there be differer requirements for mitigating the different levels of release? How would this be enforced? Is it a violation if fully mitigated?

Comment [JC19]: By definition this includes piping, but public comments seem to limit this to connections only. Need clarity.

Comment [JC20]: May need guidance on thes terms.

(1) Components at a facility upstream of a transfer of custody meter used exclusively for the delivery of commercial quality natural gas to the facility.

(2) Components incorporated into produced water lines located downstream of produced water tanks that are controlled with the use of a vapor collection system.

(3) Components that are buried below ground. Well casing that extends to the surface is not considered a buried component.

(4) One-half inch and smaller stainless steel tube fittings including those used for instrumentation.

(5) Components incorporated in lines operating exclusively under negative pressure or below atmospheric pressure.

(6) Components and piping located downstream from the point where crude oil, condensate, or natural gas transfer of custody occurs, including components and piping located outside the facility boundaries of natural gas compressor stations and underground storage facilities.

Comment [JC21]: This implies piping is cove elsewhere.

(7) Temporary components or equipment used for general maintenance purposes and used less than 300 hours per calendar year if the owner or operator maintains and can provide a record of the date when the components were installed and the number of hours the components have been in operation.

(8) Components which are unsafe to monitor when conducting EPA Method 21 measurements and as documented in a safety manual or policy and approved by the ARB Executive Officer.

(f) Beginning January 1, 2017, components shall be inspected at least once each calendar quarter for leaks of total hydrocarbons in units of parts per million volume (ppmv) calibrated as methane in accordance with EPA Reference Method 21 excluding the use of PID instruments.

(1) The quarterly inspection frequency may be reduced to annually provided that both of the following conditions are met:

(A) All components have been measured below the number of allowable leaks for each leak threshold specified in Table 4 for five (5) consecutive calendar quarters.

(B) The change in inspection frequency is substantiated by documentation and approved by the ARB Executive Officer.

(2) The inspection frequency shall revert to quarterly at any time the number of allowable leaks specified in Table 4 is exceeded during any inspection period.

(g) Owners or operators shall maintain and report a record of each leak inspection and the component leak concentration(s) and repair date(s) as specified in sections 95671 and 95672.

(h) Owners or operators shall minimize leaks immediately, but not later than one (1) calendar day after initial leak detection.

(i) Hatches shall remain closed at all times except during sampling, adding process material, or attended maintenance operations.

(j) Open-ended lines and valves located at the end of lines shall be sealed with a blind flange, plug, cap or a second closed valve, at all times except during operations requiring liquid or gaseous process fluid flow through the open- ended line.

(k) Components or component parts which incur five (5) repair actions within a continuous 12-month period shall be replaced or removed from service.

(l) From January 1, 2017 and through December 31, 2018, any component with a leak concentration measured above the following standards shall be repaired within the time period specified:

(1) Leaks with measured total hydrocarbons greater than or equal to 10,000 ppmv but not greater than 49,999 ppmv shall be successfully repaired or removed from service within 14 calendar days of initial leak detection.

(2) Leaks with measured total hydrocarbons greater than or equal to 50,000 ppmv shall be successfully repaired or removed from service within five (5) calendar days of initial leak detection.

(3) Components measured above the standards specified and which have been approved by the ARB Executive Officer as a critical component as specified in section 95670, shall be repaired to minimize the leak to the maximum extent possible within one (1) calendar day of initial leak detection and the final repair shall be completed by the end of the next process shutdown or within 180 days from the date of initial leak detection, whichever is sooner.

Comment [JC22]: Suggest striking this extra language. Minimize is already defined, this extra clause creates ambiguity.

Table 1
Repair Time Periods January 1, 2017 through December 31, 2018

Leak Threshold	Repair Time Period
10,000-49,999 ppmv	14 calendar days
50,000 ppmv or greater	5 calendar days
Critical Components	Next shutdown or within 180 calendar days

(m) By January 1, 2019, any component with a leak concentration measured above the following standards shall be repaired within the time period specified:

(1) Leaks with measured total hydrocarbons greater than or equal to 1,000 ppmv but not greater than 9,999 ppmv shall be successfully repaired or removed from service within 14 calendar days of initial leak detection.

(2) Leaks with measured total hydrocarbons greater than or equal to 10,000 ppmv but not greater than 49,999 ppmv shall be successfully repaired or removed from service within five (5) calendar days of initial leak detection.

(3) Leaks with measured total hydrocarbons greater than or equal to 50,000 ppmv shall be successfully repaired or removed from service within two (2) calendar days of initial leak detection.

Table 2
Repair Time Periods On or After January 1, 2019

Leak Threshold	Repair Time Period
1,000-9,999 ppmv	14 calendar days
10,000-49,999 ppmv	5 calendar days
50,000 ppmv or greater	2 calendar days
Critical Components	Next shutdown or within 180 calendar days

(n) Upon detection of a component with a leak concentration measured above the standards specified, the owner or operator shall affix to that component a weatherproof readily visible tag that identifies the date and time of leak detection measurement and the measured leak concentration. The tag shall remain affixed to the component until all of the following conditions are met:

(1) The leaking component has been repaired or replaced; and,

(2) The component has been re-inspected and measured below the lowest standard specified for the inspection year when measured in accordance with EPA Reference Method 21, excluding the use of PID instruments.

(3) Components measured above the standards specified and which have been approved by the ARB Executive Officer as a critical component as specified in section 95670, shall be repaired to minimize the leak to the maximum extent possible within one (1) calendar day of initial leak detection and the final repair shall be completed by the end of the next process shutdown or within 180 days from the date of initial leak detection, whichever is sooner.

(o) Compliance with Leak Detection and Repair Requirements:

(1) The failure of an owner or operator to meet any of the requirements specified shall constitute a violation of this subarticle.

(2) Between January 1, 2017 and December 31, 2018, no facility shall exceed the number of allowable leaks specified in Table 3 during any inspection period as determined by the ARB Executive Officer or by the facility owner or operator in accordance with Method 21, excluding the use of PID instruments.

(3) By January 1, 2019, no facility shall exceed the number of allowable leaks specified in Table 4 during any inspection period as determined by the ARB Executive Officer or by the facility owner or operator in accordance with Method 21, excluding the use of PID instruments.

(4) By January 1, 2019, no component shall exceed a leak of total hydrocarbons greater than or equal to 50,000 ppmv as determined by the ARB Executive Officer or by the facility owner or operator in accordance with Method 21, excluding the use of PID instruments.

Table 3 - Allowable Leaks Per Number of Components Inspected January 1, 2017 through December 31, 2018

Leak Threshold	200 or Less Components	More than 200 Components
10,000-49,999 ppmv	5	2% of total inspected
50,000 ppmv or greater	2	1 % of total inspected

Comment [JC23]: Does this switch to District EO if an MOU is in place?

Comment [JC24]: Extra clause not needed. Minimize is already defined.

Comment [JC25]: Unclear how this will be enforced, or how a violation of this section will be calculated. See comment letter

Comment [JC26]: Not necessary.

Comment [JC27]: Enforcement position on exceedences?

Table 4 - Allowable Leaks Per Number of Components Inspected On or After January 1, 2019

Leak Threshold	200 or Less Components	More than 200 Components
1,000-9,999 ppmv	5	2% of total inspected
10,000-49,999 ppmv	2	1 % of total inspected
50,000 ppmv or greater	0	0

NOTE: Authority cited: Sections 38510, 38562, 39600, 39601 and 41511, Health and Safety Code. Reference: Sections 38560, 39600 and 41511, Health and Safety Code.

§ 95670. Critical Components

(a) Beginning January 1, 2017, critical components used in conjunction with a critical process unit at facilities listed in section 95666 must be pre-approved by the ARB Executive Officer if owners or operators wish to claim any critical component exemptions available under this subarticle.

(b) Each critical component shall be identified as shown in Appendix A, Table A3 and submitted to ARB for approval by no later than June 30, 2017 or within 180 days from the installation of a new critical component.

(c) Owners or operators must provide sufficient documentation showing that a critical component is required as part of a critical process unit and that shutting down the critical component would result in emissions greater than the emissions measured from the component.

(d) Approval of a critical component may be granted only if owners or operators fully comply with this section. The ARB Executive Officer retains discretion to deny any application for approval.

Comment [JC28]: Overly broad authority, not defined well, no criteria given.

NOTE: Authority cited: Sections 38510, 38562, 39600, 39601 and 41511, Health and Safety Code. Reference: Sections 38560, 39600 and 41511, Health and Safety Code

§ 95671. Record Keeping Requirements.

(a) Beginning January 1, 2017, owners or operators of facilities listed in section 95666 subject to requirements specified in sections 95668 and 95669 shall maintain, and make available upon request by ARB a copy of the following records:

Flash Analysis Testing

(1) Maintain, for at five years from the date of each test, a record of flash analysis testing that shall include the following:

(A) A sketch or diagram of each separator and tank system tested that identifies the liquid sampling location and all pressure vessels, separators tanks, sumps, and ponds within the system; and,

(B) A record of the flash analysis testing results, calculations, and a description of the separator and tank system as specified in Appendix A Table A1; and,

(C) A field testing form for each flash analysis test conducted as specified in Appendix C Form 1; and,

(D) The laboratory report(s) for each flash analysis test conducted.

Liquids Unloading of Natural Gas Wells

(2) Maintain, for at least two years following the measurement or calculation, a record of the measured or calculated volume of natural gas vented to perform liquids unloading and equipment installed in the natural gas well(s) designed to automatically perform liquids unloading (e.g., foaming agent, velocity tubing, plunger lift, etc.) as specified in Appendix A Table A2.

Leak Detection and Repair

(3) Maintain, for at least two years from each inspection, a record of each leak detection and repair inspection as specified in Appendix A Table A4.

(4) Maintain, for at least two years from each inspection, a component leak concentration and repair form for each inspection as specified in Appendix A Table A5.

NOTE: Authority cited: Sections 38510, 38562, 39600, 39601, 39607, and 41511, Health and Safety Code. Reference: Sections 38560, 39600 and 41511, Health and Safety Code.

§ 95672. Reporting Requirements.

(a) Beginning January 1, 2018, owners or operators of facilities listed in section 95666 subject to requirements specified in sections 95668 and 95669 shall report the following information to ARB within the timeframes specified:

Flash Analysis Testing(1) Within 90 days of performing flash analysis testing, report the test results, calculations, and a description of the separator and tank system as specified in Appendix A Table A1..

Liquids Unloading of Natural Gas Wells

(2) Annually, report the measured or calculated volume of natural gas vented to perform liquids unloading and equipment installed in the natural gas well(s) designed to automatically perform liquids unloading as specified in Appendix A Table A3.

Leak Detection and Repair

(3) Once per calendar year, report the results of each leak detection inspection conducted during the calendar year as specified in Appendix A Table A4.

(4) Once per calendar year, report the initial and final component leak concentration(s) for each inspection conducted during the calendar year as specified in Appendix A Table A5.

(b) Reports may be e-mailed electronically to ARB with the subject line "O&G GHG Regulation Reporting" to oil&gas@arb.ca.gov or mailed to:

California Air Resources Board
Attention: O&G GHG Regulation
Reporting Industrial Strategies
Division 1001 I Street
Sacramento, California 95814

NOTE: Authority cited: Sections 38510, 38562, 39600, 39601, 39607, and 41511, Health and Safety Code. Reference: Sections 38560, 39600 and 41511, Health and Safety Code.

§ 95673. Implementation.

(a) *Implementation by ARB and by the Local Air Districts*

(1) The requirements of this subarticle are provisions of state law and are enforceable by both ARB and the local air districts where equipment covered by this subarticle is located. Local air districts may incorporate the terms of this subarticle into local air district rules. An owner or operator of equipment subject to this subarticle must pay any fees assessed by a local air district for the purposes of recovering the district's cost of implementing and enforcing the requirements of this subarticle. Any penalties secured by a local air district as the result of an enforcement action that it undertakes to enforce the provisions of this subarticle may be retained by the local air district.

Comment [JC29]: Double Jeopardy. See comment letter.

Comment [JC30]: Undefined costs.

(2) The ARB Executive Officer, at his or her discretion, may enter into an

agreement or agreements with any local air district to further define implementation and enforcement processes, including arrangements further specifying approaches for implementation and enforcement of this subarticle,

Comment [JC31]: MOU approval process? Public process? Timing?

and for information sharing between ARB and local air districts relating to this subarticle.

(3) Implementation and enforcement of the requirements of this subarticle by a local air district may in no instance result in a standard, requirement, or prohibition less stringent than provided for by this subarticle, as determined by the Executive Officer. The terms of any local air district permit or rule relating to this subarticle do not alter the terms of this subarticle, which remain as separate requirements for all sources subject to this subarticle.

(4) Implementation and enforcement of the requirements of this subarticle by a local air district, including inclusion or exclusion of any of its terms within any local air district permit, or within a local air district rule, or registration of a facility with a local air district or ARB, does not in any way waive or limit ARB's authority to implement and enforce upon the requirements of this subarticle. A facility's permitting or registration status also in no way limits the ability of a local air district to enforce the requirements of this subarticle.

(b) *Requirements for Covered Entities*

(1) Local Air District Permitting Requirements

(A) Owners or operators of facilities or equipment regulated by this subarticle, and who are required by federal, state, or local law to hold local air district permits that cover those facilities or equipment shall ensure that their local air district permits for those facilities or equipment contain terms ensuring compliance with this article. This requirement applies to facilities or equipment upon issuance of any new local air district permit covering these facilities or equipment, or upon the scheduled renewal of an existing permit covering these facilities or equipment.

Comment [JC32]:

(B) If, after the effective date of this subarticle, any local air district amends or adopts permitting rules that result in additional equipment or facilities regulated by this subarticle becoming subject to local air district permitting requirements, then owners or operators of that equipment or facility must ensure that any applicable local air district permits for that equipment or facility ensures compliance with this subarticle upon issuance of any relevant permit.

Comment [JC33]: It is unclear how this would work?

(2) Registration Requirements (A) Owners or operators of facilities or equipment that is regulated by this subarticle shall register the equipment at each

facility by reporting the following information to ARB as specified in Appendix A Table A6 no later than January 1, 2019, unless the local air district has established a registration or permitting program that collects at least the following information, and has entered into an MOU with ARB specifying how information is to be shared with ARB.

1. The owner or operator's name and contact information.

2. The address or location of each facility with equipment regulated by this subarticle.

3. A description of all equipment covered by this subarticle located at each facility including the following:

   (a) The number of crude oil or natural gas wells at the facility.
   (b) A list identifying all pressure vessels, tanks, separators, sumps, and ponds at the facility, including the size of each tank and separator in units of barrels.
   (c) The annual crude oil, natural gas, and produced water throughput of the facility.
   (d) A list identifying all reciprocating and centrifugal natural gas compressors at the facility,
   (e) A count of all pneumatic devices and pumps at the facility.

4. The permit numbers of all local air district permits issued for the facility or equipment, and an identification of permit terms that ensure compliance with the terms of this subarticle, or an explanation of why such terms are not included.

5. An attestation that all information provided in the registration is provided by a party authorized by the owner or operator to do so, and that the information is true and correct.

(B) Updates to these reports, recording any changes in this information, must be filed with ARB, or, as relevant, with the local air district no later than January 1 of the calendar year after the year in which any information required by this subarticle has changed. .

(3) Owners or operators of equipment subject to this subarticle must comply with all the requirements of sections 95666, 95667, 95668, 95669, 95670, 95671, 95672, and 95673 of this subarticle, regardless of whether or not they have complied with the permitting and registration requirements of this subsection.

NOTE: Authority cited: Sections 38510, 38562, 39600, 39601, 39603, 39607, and 41511, Health and Safety Code. Reference: Sections 38560, 39600, 40701,

40702, 41511, 42300, 42301, and 42311, Health and Safety Code.

§ 95674. Enforcement.

(a) Failure to comply with the requirements of this subarticle at each individual piece of equipment subject to this subarticle constitutes a single, separate, violation of this subarticle.

(b) Each day, or portion thereof, that an owner or operator is not in full compliance with the requirements of this subarticle is a single, separate, violation of this subarticle.

(c) Each metric ton of methane emitted in violation of this subarticle constitutes a single, separate, violation of this subarticle.

(d) Failure to submit any report required by this subarticle shall constitute a single, separate violation of this subarticle for each day or portion thereof that the report has not been received after the date the report is due.

(e) Failure to retain and failure to produce any record that this subarticle requires to be retained or produced shall each constitute a single, separate violation of this subarticle for each day or portion thereof that the record has not been retained or produced.

(f) Falsifying any information or record required to be submitted or retained by this subarticle, or submitting or producing inaccurate information, shall be a violation of this subarticle.

NOTE: Authority cited: Sections 38510, 38562, 38580, 39600, 39601, 39607, and 41511, Health and Safety Code. Reference: Sections 38560, 39600 and 41511, Health and Safety Code.

§ 95675. No Preemption of More Stringent Air District or Federal Requirements

This regulation does not preempt any more stringent requirements imposed by any Air District. Compliance with this subarticle does not excuse noncompliance with any Federal regulation. The ARB Executive Officer retains authority to determine whether an Air District requirement is more stringent than any requirement of this subarticle.

NOTE: Authority cited: Sections 38510, 38562, 39600, 39601 and 41511, Health and Safety Code. Reference: Sections 38560, 39600 and 41511, Health and Safety Code.

§ 95676. Severability [No changes suggested]

Comment [JC34]: See comment letter regardi compliance and enforcement permutations.

Comment [JC35]: Defeats the purpose of a uniform set of statewide standards.