



CIPA

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**Comments of the California Independent Petroleum Association
on the Proposed Greenhouse Gas Emission Standards for
Crude Oil and Natural Gas Facilities (4/22/15 version)**

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The California Independent Petroleum Association (CIPA) appreciates the opportunity to submit the following comments to the California Air Resources Board (CARB) for its consideration. The Proposed Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities is an entirely new regulation under the AB 32 regime and designed specifically to address a single pollutant within a single industrial category, therefore this opportunity to fully address and evaluate its impacts on that single industry is critical.

The mission of CIPA is to promote greater understanding and awareness of the unique nature of California's independent oil and natural gas producer and the market place in which he or she operates; highlight the economic contributions made by California independents to local, state and national economies; foster the efficient utilization of California's petroleum resources; promote a balanced approach to resource development and environmental protection and improve business conditions for members of our industry.

The members of CIPA believe that domestic petroleum production already plays a meaningful role in helping the state meet its policy goals for reducing greenhouse gas emissions in California. CIPA understands that the staff proposed regulation of greenhouse gas (GHG) for crude oil and natural gas facilities is a part of the larger CARB GHG strategy, but the regulation as proposed has some inherent technical, implementation and enforcement issues that need to be addressed prior to finalization of the rulemaking.

CIPA's concerns are detailed below.

Breadth of Regulation

The Regulation has seven main control strategies¹. The Standardized Regulatory Impact Assessment (SRIA) shows that 93% of all projected reductions come from only three strategies--Uncontrolled Oil and Water Separators and Tanks, Reciprocating Compressors, and Pneumatic Devices and Pumps. The remaining categories combined are projected to only achieve 36,650 mt CO₂e, with the Liquids Unloading category only projected to achieve 350 mt CO₂e. The combined total these is only slightly larger than the threshold that subjects entire facility to the Cap and Trade Program. The potential reductions from these remaining categories is equivalent to roughly 0.01% of the 2018 allowance budget.

CIPA is concerned that the scope of the regulation extends past the point where it really achieves significant reductions and into that of diminishing returns. Each of these smaller categories comes with a cost in terms of not only capital, but ongoing administrative requirements for both CARB and the covered entities. It would seem to be a much more effective use of staff and entity time and resources to focus only on the larger reduction categories.

CIPA recommends the final regulation focus only on the largest reduction potential categories listed above.

Regulatory Adoption timeline

Staff has proposed a very aggressive regulatory adoption timeline. CIPA questions the necessity for such a schedule.

The first draft of the regulation was posted on April 22, 2015, and according to staff's comments at the April 27th workshop there would not be another public version to review until the official 45-day package come out. This is a major regulation impacting hundreds of facilities throughout the state, having only a single opportunity to review and comment on the initial discussion draft is problematic.

CIPA understands the desire to move ahead with this regulation, but CIPA questions the necessity to jump directly to a final proposed regulation without stakeholders receiving the opportunity to understand how staff incorporated the numerous and highly technical comments that are being submitted.

CIPA recommends that staff provide stakeholders an opportunity to review another version of the proposed Regulation prior to a 45-day packet being posted.

Implementation Timeline

The proposed regulation states the intention to have a January 1, 2017, as the effective date for record-keeping, reporting, LDAR and reciprocating compression strategies. The intended effective date for retrofits is one year later, January 1, 2018. CIPA questions the necessity for such short implementation schedule and has additional concerns on the clarity of the actionable items.

If the current regulatory adoption schedule holds as described at the April workshop (see concerns above), the earliest the regulation could be effective is July 1, 2016. This only

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http://www.dof.ca.gov/research/economic_research_unit/SB617_regulation/2014_Major_Regulations/documents/Oil&GasSRIA.pdf

provides a very short six month window before the January 1, 2017 projected effective date. This Regulation impacts a variety of facility sizes throughout California, some of which already have vapor controls, while others do not. Requiring ALL retrofits within 18 months (or sooner) could provide a measurable cost differential between production entities over this initial timeframe. This differential could negatively impact various CIPA members.

In addition to the short implementation time, the provisions of the regulation are unclear with respect to various requirements. An example of this can be found in Section 95213(a) where requirements conflict one another with respect to timing. Once effective, the owner or operator of a primary or secondary vessel without vapor control would be subject to installing controls (assumed to be by 2018), but also has the option to perform “annual flash analysis testing” with a subsequent 90 day reporting requirement to show that controls are not necessary. It is unclear how the timing of these provisions would be implemented.

The regulation also does not take into account the often considerable time for engineering, permitting, environmental review and installation of equipment. The timing for this series of events can routinely take more than a year.

Since the actual timing language was not provided, CIPA recommends staff work with stakeholders prior to establishing the final implementation dates within the regulation.

Implementation and Enforcement

The enforcement provisions of the regulation codify double jeopardy for regulated parties as well as formal regulatory implementation decisions outside of the Administrative Procedures Act. CIPA has a significant concern over these topics.

Historically, the vast majority of air quality regulations have been segregated into either “CARB enforced” or “local enforced”. A regulated party should only have to answer to one regulatory body for a single regulatory regime. Subjecting entities to not only the potential of a violation at either the State or Local level is concerning enough, but explicitly subjecting an entity to enforcement action at *both* the state and local level for the same act is very troubling.

It is a stated goal of this Regulation to provide for “uniformity” in the regulation of methane from this sector. Allowing individual districts to enforce under their standard enforcement guidelines defeats this goal.

Section 95216(2) of the Regulation authorizes CARB to enter into an agreement with any local air district to “further define implementation and enforcement processes”. These are important and substantive decisions that impact every stakeholder, yet they would be made without stakeholders ability to review, comment or engage. Implementation and enforcement issues are required by the Administrative Procedures Act to be fully understood and in the public domain prior to adoption by the CARB Board. Subsequent formal or informal refinement of implementation and enforcement agreements/procedures outside of the APA process should be eliminated.

At the April 27/29, 2015 workshops staff noted that “ARB [is] also working with air districts to craft ways to implement and enforce the new standards.” This issue is especially important given Section 95217 which notes that enforcement actions will be calculated at “each individual piece of equipment” as a “single, separate, violation of this article”.

CIPA strongly recommends that prior to regulatory adoption, these pending implementation and enforcement issues are resolved in the public domain, including the elimination of possible double jeopardy.

Air District Interactions

As stated repeatedly, the Regulation is seeking to provide a statewide, uniform methane regulation. This laudable goal will be difficult to achieve as there are already existing local air district VOC programs with which will be used as the basis for local implementation. Additionally, there are areas of the state without programs in place that will need to rely on CARB for assistance.

The Regulation defers on countless occasions for local air districts to 1) approve various items, 2) request additional data of entities, 3) grant equipment installation time extensions, 4) permit equipment, 5) prepare and submit to CARB plans/documents, and more. Some of the actions required of entities are subject to *either* air district or to CARB approval without further clarification. Leak Detection and Repair requirements explicitly acknowledge different requirements based on existing district rules.

The number of permutations available for implementing this rule highlight the fact that it really is a local rule being imposed at the state level, with state oversight and enforcement layered on top. This is an awkward way of regulating GHG emissions. CARB is delegating the responsibility to the local air districts, but only partially.

CIPA recommends that CARB delegate the requirements of this regulation to air districts with existing programs and limit its oversight and enforcement to those districts that do not have an existing oil and gas regulations.

Cost Estimates

The cost projections for this regulation are not well documented and include very large ranges of potential costs. Cost projections were provided by staff at the December 9, 2014, workshop, but are ultimately inconclusive as more information was being sought on alternatives proposals, frequency of maintenance, number of affected units and other key parameters.

Because this Regulation is considered to be a “major regulation”, as it will have projected single-year costs of over \$50 million, a supplemental economic analysis is required by law. That analysis is the updated April 29, 2015 version of the “Standardized Regulatory Impact Assessment (SRIA) of the Regulation for Reduction of Greenhouse Gas Emissions from Crude Oil and Natural Gas Operations” posted on the Department of Finance website. The SRIA analysis looks at this regulation from a macro viewpoint, using comparisons with the entire state economy and Gross State Product. This type of analysis does not provide an individual stakeholder the ability to actually see what the potential projected costs could be for their operations.

Even taken together, these two documents do not provide a clear picture of the estimated costs to comply with this proposal.

CIPA requests that staff prepare an updated and detailed economic impact document which clearly shows what the individual impact potential would be on entities.

Technical Issues and Questions

CIPA has attached an addendum with specific drafting and technical questions and concerns. Please see attached Addendum A.

In addition to CIPA's submitted comments, we support the technical comments submitted by WSPA on this version of the regulation.

Thank you for your attention to this important matter. Any questions or follow-up comments can be directed to myself at rock@cipa.org.

Sincerely,

A handwritten signature in black ink, appearing to read 'Rock Zierman', with a long horizontal stroke extending to the right.

Rock Zierman
CEO

Cc: Jim Nyarady, Manager, Oil & Gas Section
Carolyn Lozo, Manager, Program Assessment Section
Johanna Levine, Lead, Environmental Analysis
Chris Hurley, Lead, Cost Estimates

-Addendum A-
Technical Questions and Concerns

95213. Standards

(a) Primary and Secondary Vessels

- Is the < 10 MT CH₄ per year criteria applicable to each primary vessel? Or to each separator / tank system? Or to an entire facility with multiple separator / tank systems?
- The reference to 95213(a)(1)(B)(1) appears to be an error. Not sure what the correct reference should be.
- How will an operator demonstrate (to CARB's satisfaction) that analytical results are "representative" as required by 95213(a)(1)(A)(5)? What are the criteria for determining what is "representative"?
- 95213(a)(1)(C) states that annual testing may be extended to once every five years if "the annual emission rate has not changed using three (3) consecutive years of test results"
 - It is unclear exactly what "has not changed" means? How much of a change will be considered a material? Does this provide only apply to positive increases?
- 95213(a)(1)(C)(2) says an operator must test again if annual throughput increases by more than 10% since the most recent testing
 - How will the increase be calculated? Is it based on instantaneous bbls/day throughput at the time of testing? Or an annual average for the year in which the testing occurs? Or something else? If based on annual average, an operator may not be able to accurately estimate how much of a change there will be in annual throughput until late in the year. Does the retest need to occur during the same calendar year in which the throughput increased? If so, an operator will need to anticipate throughput increases during the year or risk doing unnecessary testing.
- The use of the terms "vapor collection system" and "vapor control device" are confusing and unclear:
 - As defined, a "vapor control device" is not part of a "vapor collection system"
 - But 95213(b)(1)(A) uses the term "vapor collection and control system"
 - And 95213(b)(1)(C) uses the term "vapor collection system and control system"
 - And 95213(c) is titled "Vapor Collection Systems", but also discusses "vapor control devices"
- The term "95% vapor control efficiency" for "vapor control devices" in 95213(c)(4)(A) and (B) is not defined:
 - Does the 95% refer to methane? Or VOC? To volume%? Or weight %?
 - Most current regulations requiring tank vapor control specify 95% VOC by weight
 - Non-combustion control options for methane are more limited than for VOC. For example, carbon adsorption systems are commonly used to control VOC vapors from portable storage tanks but are ineffective in controlling methane.

(b) Circulation Tanks for Well Stimulation Treatments

- Must either:
 - Use “vapor collection and control system” upstream of tanks; or
 - Use vapor tight tanks with “vapor collection system and control system”.
 - The term “vapor tight” is not defined. Is this absolutely zero leaks of any magnitude? Or does it mean leaks that exceed a threshold level, e.g., 1,000 ppmv as methane?
 - The phrase “vapor collection system and control system” is inconsistent with the definitions. 95213(c) of the rule requires a “vapor collection system” to direct vapors to a sales, fuel, or injection system or to a control device. So there’s no need to include the phrase “control system” here.
 - Staff referred to the use of a separator / flare system upstream of circulation tanks in other parts of the country as an example of what could be done to control vapors from a circulation tank. But the vast majority of California well work involves forced (with a pump) circulation (not natural flow) from oil wells that involve low pressures and low volumes of gas for short periods of time (typically a day or two), following small volume well stimulation activities. This is a different world from the natural flowback / testing of shale oil and shale gas wells that, under their own pressure, flow high volumes at high pressures for extended periods of time following large volume hydraulic fracturing treatments. The volumes of gas involved and the technical feasibility and economics of various control options are substantially different.
 - Vapor control technologies commonly used to control VOC emissions from portable tanks may not be effective to control emissions of methane (e.g., carbon adsorption systems).
 - Will also need to consider:
 - timeframes to design systems, apply for permits, and receive permits;
 - and potential adverse impacts on existing vapor recovery systems via introduction of oxygen and other substances, which may create corrosion concerns, etc.
- The definition of “well stimulation treatment” is different from the SB4 definition. And also different from the definition used in SCAQMD Rule 1148.2. Multiple definitions and requirements by different jurisdictions hamper industry’s ability to achieve compliance.
 - Suggest using the SB4 definition of “well stimulation treatment”, i.e., 1) hydraulic fracturing, 2) acid fracturing, and 3) matrix acidizing above the SB4 threshold.

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

- Must direct collected vapors to either sales, fuel, or injection system
 - Again, define “95% vapor control efficiency”.
 - Limiting the use of supplemental fuel in combustion type vapor control devices may not be practical in many cases. For example, vapor flow from circulation tanks is likely to be low pressure (very few California wells flow naturally, they must be pumped or circulated) and have significant variations in gas flow rate and gas composition. Under these conditions, it may not be possible to maintain a sufficient flame in a combustion control device without using supplemental fuel.
 - Need to include the option of modifying (with proper permitting) an existing control device to accommodate the additional vapors (vs. installing a new device).
- Add “95213 (c) (1) (D) – Flares and other incineration devices, as approved by the local air district.”. The provisions of 95213 (c) (4) requiring the owner or operator to successfully demonstrate that the collected vapors cannot be controlled according... are overly subjective.

(d) Reciprocating Compressors < or = 500 bhp

- Paragraph (d)(1) should include the option of routing collected vapors to injection (in addition to an existing sales system, fuel system, or control device).

(i) Leak Detection and Repair

- Definition of “Component” is different from the MRR. This will cause confusion and inability to interpret data between programs.

95215. Reporting Requirements

(a)(4) – Leak Detection and Repair

- The required annual report to CARB will need to be compiled differently than annual reports already being compiled for local agencies (e.g., different definitions of component, different leak thresholds, different definitions of “facility”, etc.).
- Are the reports to be compiled by AQMD facility ID or by CARB GHG facility ID?

95216. Implementation

(a) – Requirements for Covered Entities

- Local air permits must reflect these requirements by specified date. Do operators need to apply for permit modifications? In any case, operator has no control over timeline for issuance of updated permits.