



California Independent Petroleum Association

1001 K Street, 6th Floor

Sacramento, CA 95814

Phone: (916) 447-1177

Fax: (916) 447-1144

**California Independent Petroleum Association Comments
on the CARB 2026 Discussion Draft Performance Standards for Continuously
Operating Emissions Detection Systems Required by California Senate Bill 1137 for
Upstream Oil and Gas Production Facilities in Health Protection Zones.**

Edie Chang
Deputy Executive Officer
California Air Resources Board

August 31, 2026

Via electronic submittal to: [Informal Comment Docket](#)

Ms. Chang and SB 1137 Rule Development Team,
Thank you for the opportunity to comment on the recent release of the *informal Discussion Draft Performance Standards for Continuously Operating Emissions Detection Systems Required by California Senate Bill 1137 for Upstream Oil and Gas Production Facilities in Health Protection Zones* (Discussion Draft) on behalf of the members of the California Independent Petroleum Association (CIPA). This is a critical time for the liquid fuel feedstock production sector as the State is experiencing both an energy affordability crisis and demonstrable leakage. Any newly promulgated regulations need to understand this paradigm and strive to eliminate any unnecessary or duplicative costs--see Attachment A for cost drivers.

Given the consequences specified in SB 1137¹, namely that “the operator shall suspend all production and injection operations within a health protection zone unless an approved leak detection and response plan is fully implemented in that area” (emphasis added), it is critical that this regulation be understandable, well written, and contain clear compliance standards that can be achieved by operators of all sizes. CIPA believes the Discussion Draft is far from meeting these minimum standards--see Attachment B which show the complicated compliance flow charts. We encourage CARB to revisit the assumptions and foundations of this overly complex regulation and its excessive requirements.

In addition to concerns over clarity, the Discussion Draft imposes both unnecessary and duplicative costs. These near-term costs (immediate and significant capital expenses) and mid- to long-term costs (continuous operating expenses) are more than what is needed to accomplish goals of, or required by, SB 1137--see Attachment C for comparison table. This initial staff proposal will have direct and significant impacts on in-state producers. We believe the rule can accomplish an equivalent effectiveness at a far lower price. There is still time to redraft and circulate prior to its formal noticing.

¹ https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB1137

CIPA's comments focus on a wide range of issues including:

- Practical concerns (timing and implementability);
- Technical concerns; and
- Costs in excess of what is necessary and reasonable.

California's energy infrastructure is being dismantled in real-time, and as proposed, this regulation will only serve to speed up that process. Conservative estimates of cost indicate there will be direct loss of production from the State's smaller producers—supply that will be made up with imported crude. This exporting of jobs, tax-base, and emissions will occur while the State still needs refined petroleum products for decades to come².

CIPA represents nearly 300 crude oil and natural gas producers, royalty owners, and service and supply companies who all operate in California under the toughest regulations on the planet, including: existing leak detection, repair, monitoring and recordkeeping requirements at both the State and Local levels. 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 marketplace in which they operate; 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. This proposal is a direct threat to the viability of many CIPA members.

The comments below are an attempt to provide constructive feedback to make the Discussion Draft less expensive and more workable such that the requirements of SB 1137 can be met at a lowest cost by all operators. CIPA believes CARB's July workshop presentation drastically underestimates the total implementation cost of this Discussion Draft, and its impact on operations.

One note on timing transparency. The Discussion Draft is dated January 5, 2026, but was not released until July 2026. These six months will turn out to be critical in the implementation timing. Regardless, retaining a January 5, 2026, version date provides a false sense of impacted stakeholders ability to digest the requirements and comment appropriately.

As a foundational comment, CIPA does not believe the Discussion Draft is implementable as written, at anything close to the costs outlined by CARB. The requirements on *all* operators come into force at *exactly the same* time, thus putting an incredible strain on the limited pool of resources demanded—third party air dispersion modelers, emission detection equipment, source testing laboratories, supply chains, and even agency personnel needed for implementation.

The Discussion Draft's stated purpose is to *implement* the provisions of SB 1137, however much of the regulation is simply cross-references to the Statute without any focused implementation details that make ambitious statutes into workable regulations. Regulations, by definition, are the mechanism by which agencies such as CARB and CalGEM, translate broad statutory authority into specific, clear, and enforceable rules. CARB's goal with this regulation should fill in the operational details that legislature left to executive expertise and not expand the breadth of those requirements. Several key sections of the Discussion Draft simply restate the adopting code, while other parts provide statements that can be interpreted in multiple directions.

² <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan>

Quoting from your *Evaluation of Potential Performance Standards for Continuously Operating Emissions Detection Systems for Upstream Oil and Gas Production Sites in California*³:

“SB 1137 requires operators to implement EDS at oil and gas production facilities located in HPZ to identify leaks before emissions impact the surrounding communities. These systems are not intended to alert operators of all emissions, as certain venting activities are permitted under facility operating conditions. Instead, EDS required by SB 1137 are specifically intended to identify leaks, which are caused by faulty equipment or component failures.”

CIPA does not believe operators will be able to implement the rules intended to ‘identify leaks’ caused by equipment failures in a cost-effective manner. Background and neighboring emission sources will initiate expensive and time-consuming false alarms. This is not theoretical. Other government efforts in this area, mainly CalGEM’s methane drone program, produced a 97% false positive rate that caused unnecessary alarm amongst sister agencies and costly, unneeded actions by the operator to respond to what turned out to be background emissions detections. The Discussion Draft does an inadequate job of laying a workable framework.

As noted, this Discussion Draft simply restates the law in many instances, without providing the appropriate implementation direction necessary for regulated entities to clearly understand the requirements being placed upon them. Such ambiguity doesn’t follow the California Administrative Procedures Act, or APA.

“The requirements set forth in the APA are designed to provide the public with a meaningful opportunity to participate in the adoption of state regulations and to ensure that regulations are **clear, necessary and legally valid**.”⁴ [emphasis added].

CARB should provide greater direction to substantially reduce the potential costs of the final regulation. In fact, this rule draft is overly specific where flexibility is called for, and overly vague where details would be useful to understand what is acceptable for compliance.

Structural Concerns with the Discussion Draft

CIPA appreciates the direct acknowledgement that no two production operators/sites/facilities are the same, as well as, the desire for regulatory flexibility, but the Discussion Draft is currently written in an open-ended way where redundant and/or unnecessary resources would need to be spent to ensure compliance in a bespoke manner, i.e. every facility is required to start from scratch on every aspect of the rule—see Appendix B. There are simple tools at CARB’s disposal to dramatically bring down the costs of this proposal if they are incorporated into the final regulation:

- 1) Only require the minimum standards needed to implement SB 1137
- 2) Use of defaults where applicable
- 3) Allow the use of existing data
- 4) Acceptance of established rules and procedures to count as equivalent

³ https://ww2.arb.ca.gov/sites/default/files/2026-06/Performance_Standards_TSD_V10_QC%20version_ADA.pdf

⁴ https://oal.ca.gov/publications/administrative_procedure_act/

All of these options can all effectively achieve the same intent without the excessive, unnecessary and duplicative cost burdens. CIPA urges CARB to not reinvent the wheel when it comes to leak detection. This is already a highly regulated sector, including both CARB and local air district regulations. Why is CARB starting over? Overlaying more requirements will, as written, have a direct effect of shutting down production sites of various types, while hitting smaller facilities inordinately hard.

As to the clarity and structure of the regulation, this proposal is inconsistent with how most regulations are structured. Most follow a similar structure to this:

- 1) Applicability and exemptions;
- 2) Definitions;
- 3) Requirements or Standards; and
- 4) Enforcement and other provisions.

While the Discussion Draft headers state these topics, its structure is convoluted, and confusing on what an acceptable Emission Detection System (EDS) is, how to choose and site appropriate EDS, what is a defined site, and how to develop an approvable LDRP. CIPA recommends the Discussion Draft get organized to have a more linear flow.

The following highlights the circuitous nature of the core standards section. CIPA questions whether CARB has attempted to work through this regulation as if it were a regulated entity, i.e. Does the regulation as written provide a reasonable pathway to securing an approvable EDS from CARB, and likewise and approvable LDRP from CalGEM. The Discussion Draft's main section (93504), has the following structure:

- Section (b) is about setting toxic of highest concern, before sensor identification;
- Section (c) and (d) are about requirements of the EDS once a system has been chosen;
- Section (e) briefly mentions air dispersion modeling, which would need to be done pre-sensor identification, and then it continues on to add more requirements of the EDS system;
- Section (f) is the setting analysis, which is just a requirement to ensure you're complying with section (e);
- Section (g) is the baseline analysis which is skipping way ahead and to be done after one year of implementation;
- Section (h) goes back to air dispersion modeling which sets an alarm threshold and needs to be done prior to selecting an EDS;
- Sections (i), (j), (k), and (l) are all more requirements of the EDS; and
- Section (m) and (n) describes the creation of the LDRP and the audit of the LDRP, which needs to be created after choosing an EDS and before implementation.

In addition, the Discussion Draft's extensive cross references to the adopting statute do nothing to clarify implementation and only add to the confusion and lengthen the document. In addition, they will become conflicting and outdated the moment the statute is amended. An example this can be found in the initial applicability section. The following suggested edits should be carried through the entirety of the document. The end of section authority citations serve this purpose and therefore in-line regulation citations are not needed.

§ 93501. Applicability.

- (a) This subchapter applies to all operators with a production facility or well with a well head in a health protection zone ~~required to develop a leak detection and response plan including a~~

~~continuously operating emissions detection system pursuant to Public Resources Code section 3283(a).~~

- a. ~~Pursuant to Public Resources Code section 3281(d),~~ Underground gas storage wells and attendant production facilities are not subject to this subchapter...

Such strikeouts would provide needed clarity.

Definitions

The Discussion Draft needs to be updated such that the defined terms are understandable, or such that commonly used terms in the Discussion Draft are explicitly defined. An example, there is not a definition of “Site” even though “Site-specific” is a key term used 19 times. CARB’s acknowledgement that each facility/site is unique and therefore flexibilities are needed. However, without a definition of “site”, the regulation becomes too ambiguous to implement. How does one plan to create a site-specific Leak Detection and Response Plan (LDRP), when such a basic parameter is left up to a discretionary approval process, which is conducted *after* considerable resources have been spent.

From conversations with CARB staff, a rubric for determining what a “Site” is defined as, was used to draft the forthcoming SRIA. This metric should be part of the proposal so it can be reviewed and commented upon.

CIPA recommends either a clear definition which can be used by operators and for evaluation of costs within the Standardized Regulatory Impact Assessment (SRIA), or language that clearly allows operators to self-define each of their ‘sites’. In some cases, it may be more cost-effective to have one large site with many individual wells and tanks, and in others it may be better to subdivide a facility. It will all come down to an individual analysis. Not knowing “how many” sites there are prevents CARB from developing clear cost estimates and allowing operators to clearly state what their “site” is allows for optimization and reduced costs.

There should be a clear delineation between Definitions and Standards. The definition of a “Continuously operating emissions detection system” or “EDS” is much more than an identification of term. Instead, it contains upwards of five separate sentences, which each read as distinct requirement for compliance, and therefore should not be embedded within a definition but rather in the Standards section.

(28) “Production equipment” -- This is too broad a definition and can be interpreted to include equipment like underground pipelines which would be impossible to implement an EDS. The inclusion of water injection wells is also unnecessary as there are no fugitive emissions associated with injection wells. Narrowing the definition of equipment is a key cost savings recommendation. CIPA suggests the following edits.

“Production equipment” or ~~“production facility”~~ means any equipment associated with oil and gas production including, but not limited to, tanks, above ground flowlines, headers, above ground gathering lines, wellheads, heater treaters, pumps, valves, compressors, gas injection equipment, production safety systems, separators, manifolds, and above ground pipelines that are not under the jurisdiction of the State Fire Marshal pursuant to section 51010 of the Government Code, excluding fire suppression equipment. ~~“Production equipment” and “production facility” are used interchangeably.~~

Production Facility is not equivalent or interchangeable with “production equipment”. Production facility is more akin to “site” which needs defined, especially given its use in the Applicability section.

(43) “Well” -- See above for “Production Equipment” comment. There is no need and no legal precedent for the inclusion of injection wells. It is not possible for a water injection well to have fugitive emissions.

Technical Concerns with the Discussion Draft

CIPA has the following technical concerns with the current drafting of Section 93504:

- (b)(A)(2):
 - TO-15A is specific to “Ambient” air measurements and requires a more specialized laboratory. Recommend reviewing the appropriateness of this test method.
- (b)(1)(E):
 - Requires three samples of each production equipment per site.
 - For individual well sites that tie into a larger processing facility, is a representative sample of combined well gas adequate or will every single well need to be tested?
- (b)(3):
 - Why is the smallest ratio used, why not the ratio specific to the equipment at the site or the average of all equipment tested at the site? This creates an unnecessary cost driver. There is no technical reason to use the smallest ratio. It adds an unnecessary cost by causing false alerts depending on site layout. If the EDS can ascertain that an elevated emission does not emanate from the equipment that has the lowest ratio (for example because the wind is blowing not in the direction of the sensitive receptor, relative to the equipment with the lowest ratio) then that ratio should not be used but the second lowest could be used instead. More generally, where an EDS can reliably attribute an elevated reading to the equipment group of origin (for example, by combining multiple sensors with wind direction), CARB should allow source-specific alert thresholds set from each equipment group’s own methane-to-toxic ratio, rather than forcing a single site-wide worst-case ratio. This preserves detection of genuine leaks while eliminating the false alerts—and their associated personnel response costs—that a single smallest-ratio rule would otherwise create.
- (d): Given the requirements in Section (c) CARB is forcing entities to use an automated cloud-based system, as compliance cannot be accomplished with a simple sensor system. The cost of these systems (not just the cost of the sensors) needs to be included in the SRIA and considered when developing this regulation.
- (d)(3): Quarterly bump checks are not needed. Newer equipment and technology can be proven to be more reliable than older monitoring equipment that tended to ‘drift’. Need an ability to get out of quarterly if proven technology. The idea of quarterly checks is an anachronism. The cost to check calibration can be substantial: (\$/hr for technician and travel time) x (15 mins/sensor) x (# sensors in the thousands) annually. The Biden EPA already agreed that there is no benefit to these extra costs. When approving EDS as an alternative to OGI inspections under

the federal OOOOb/c rule, USEPA under the Biden administration did not require a quarterly bump test as long as a quality management plan for the EDS was provided and pre-approved. Approvals are documented by USEPA as Methane Alternative Test Methods and examples of approved methods including the quality plan can be found on USEPA website⁵. The EPA already agreed that there is no benefit to these extra costs. To avoid excessive costs CARB should follow this precedent and delete this requirement.

- (e)(2)(B):
 - Requiring production equipment that knowingly does not have the potential to leak to still require monitoring is a cost source with no emissions value. To avoid excessive costs without related environmental benefit CARB should amend the rule to strike this overly broad requirement.
- (e)(3)(D):
 - As part of implementation guidelines CARB should provide a clear sample calculation to explain how to “account for uncertainty in measured values” mean.
- (e)(3)(F):
 - What does “quantifiably resolved from temporal variation in the baseline condition” mean? Do entities add the baseline to the alert threshold after 12 months?
- (f): The EDS siting and alert threshold setting analysis:
 - What is the purpose of this requirement if entities already need to comply with section (e)?
 - The minimum requirements are vague. In (f)(1)(B) what calculations are being referring to?
- (g): If the intent of this baseline analysis to identify non-oil related emissions and eliminate them from the analysis, it should be more clearly stated as such that it is to be added to the alert and alarm thresholds.? CARB could consider allowing the MATES V data to be used for South Coast operators.
 - § 93504(g) provides that the baseline detection target concentration “shall be calculated as the arithmetic mean of baseline measurements” accumulated over twelve months of valid hourly data (§ 93504(g)(1)) and applied thereafter as a time-invariant constant, with an interim monthly value during accumulation (§ 93504(g)(2)). The alert threshold is applied to the measurement after subtraction of that baseline. Separately, § 93504(e)(3)(F) requires alert thresholds to be “quantifiably resolved from temporal variation in the baseline concentration.”

This approach has a major deficiency. A constant value cannot satisfy § 93504(e)(3)(F)’s requirement that thresholds be resolved from temporal variation, because it represents

⁵ <https://www.epa.gov/emc/oil-and-gas-alternative-test-methods>

a varying background as a constant. It is well known in the scientific literature that the physical background presence of methane concentration at an oil and gas sites vary on diurnal, seasonal, and event-driven time scales, so subtraction of a fixed annual mean creates a lot of errors due to over and underestimation of actual values.

The ambient background at a production site is non-stationary. Due to differences in atmospheric conditions between day and night near-surface emissions accumulate during some times and disperse faster during others. Seasonal effects add to this. Moreover, allowable off-site methane contributions (for example from technically unavoidable methane slip from compressors, from maintenance activities or from nearby agricultural installations or landfills) vary strongly over time. California's statewide airborne methane surveys characterized point sources that appear "intermittently and stochastically".

This creates a dual failure. During some periods of time the annual mean exceeds the instantaneous background; subtraction over-corrects, and a genuine leak increment can be reduced below the threshold and won't be detected. During other periods the annual mean is below the instantaneous background; subtraction under-corrects, and normal accumulation is reported as an exceedance. Depending on site configuration such exceedance can be expected to occur almost daily with excessive costs in response to these false alerts.

- A possible solution to this problem is contemporaneous subtraction of measurements. Contemporaneous background subtraction measures the air entering the site, from upwind sensors and subtracts it, interval by interval, from the air leaving the site. Diurnal, seasonal, and off-site components are removed by design, because each appears on both sides of the difference. The residual, the on-site increment, is the facility's own contribution, and the alert threshold is applied to that increment.

There is a precedence for such an approach: South Coast AQMD Rule 1466. This rule regulates airborne particulate from earthmoving at toxics-contaminated sites. It defines its action level as the downwind-minus-upwind concentration difference over a one-hour averaging period, with work resuming when the net difference remains below the action level for thirty minutes. The rule establishes no temporal baseline; the background is the concurrent upwind measurement. Adopting a method in-line with this precedence will not only eliminate unnecessary cost of responding to false alerts, but it will also improve environmental protection as time periods where the actual background is below the annual average.

- (g)(1)(B):
 - Why not just exclude all hours of missing data? Excluding days where 5 or more hours are missing data just makes the analysis much more difficult and expensive.
- (h):

- The requirement for air dispersion modeling adds yet another unnecessary cost to the entire program. Why is it not possible to just use your site-specific gas samples and methane ratio as the threshold? Why does modeling need to be done to find a leak rate when the EDS will be measuring a concentration?
- Given the purpose of the modeling is to establish alert levels for each sensor would have to set excessively low. This would result into lots of false positive detections as we note elsewhere is an unnecessary cost.
- (n):
 - Independent audit every 36 months, but the plan needs to be reviewed and updated every 5 years. Why not just have the audit every 5 years during the review?
- (m)(9)
 - The draft requires identification and qualification information for plan authors, modelers, and numerous other personnel involved in preparing the LDRP. These disclosures are unnecessary for work that CalGEM and CARB are independently required to evaluate for regulatory compliance. The adequacy of an LDRP or supporting model should be determined by whether the submitted work uses the required methods, contains the required information, is technically supported, and complies with the final regulation—not by the résumé, academic background, or employment history of the person who prepared it.

Requiring particular credentials for plan authors or modelers could improperly convert personnel qualifications into a substitute for substantive agency review. A model prepared by a highly credentialed consultant may still contain incorrect assumptions or fail to comply with the regulation, while technically sound work prepared by an experienced operator may fully satisfy every applicable requirement. In either case, CARB and CalGEM must evaluate the actual plan and modeling work.

Accordingly, the qualifications relevant to determining whether those materials comply with the regulation are ultimately those of the agency personnel responsible for reviewing and approving them. If the regulation prescribes the required modeling methods, inputs, documentation, and performance criteria, the agencies should determine whether each submission satisfies those objective requirements without imposing separate credentialing restrictions on the individuals who developed it.

Personnel qualifications have a more direct and defensible purpose where individuals physically install, commission, calibrate, inspect, repair, or maintain EDS and meteorological equipment. Competency in those activities can directly affect worker safety, equipment integrity, measurement accuracy, and continued system performance. Qualification requirements for those personnel should therefore be tied to the specific equipment and work performed, such as manufacturer training, applicable electrical or instrumentation qualifications, calibration proficiency, and documented experience with the relevant technology.

CIPA requests CARB remove qualification-disclosure requirements for personnel who prepare the LDRP, conduct modeling, develop calculations, or otherwise author

supporting technical materials. Evaluate those submissions solely against objective regulatory requirements, approved methods, documented assumptions, reproducibility, and technical accuracy.

Limit operator personnel-qualification requirements to individuals performing safety- or performance-critical work involving the physical installation, commissioning, calibration, inspection, repair, or maintenance of EDS and meteorological equipment. Permit compliance through identification of qualified job classifications, contractors, or service providers rather than requiring personal biographies, residential addresses, or recurring disclosures for every individual.

CARB and CalGEM should also ensure that personnel assigned to review LDRPs and supporting models possess the technical qualifications necessary to evaluate the work consistently, including appropriate expertise in emissions-monitoring technology, air-dispersion modeling, data quality, oil and gas operations, and the requirements of the final regulation.

- Language such as “as soon as technically feasible” should be removed. It only serves as an opening for confusion and unwarranted legal challenges with risks of excessive costs and no benefits. As an illustration: it is “technically feasible” to connect every individual EDS sensor by a dedicated optic fiber line to each operator. This would save a few milli-seconds of the alert time. We don’t presume this was intended by CARB (otherwise hundreds of millions of dollars would have to be added to the cost estimate). This is just to indicate that open-ended language like this could invite such an interpretation. Instead, CARB should set one clear performance requirement and leave it to the operator or the EDS provider on how to comply.

Discussion Draft sections § 93502(a)(31), 93504(a), and 93504(b)(2) -EPA’s AEGL framework is more appropriate than OEHHA RELs for acute public-health response.

- The draft relies on OEHHA acute Reference Exposure Levels to identify the toxic constituent of highest concern and establish methane-based EDS alert thresholds. This approach risks treating a conservative screening value as a demonstrated acute-injury threshold and then using that same value to support detection, investigation, corrective action, and public notification.

For hydrogen sulfide, OEHHA establishes an acute REL of 42 $\mu\text{g}/\text{m}^3$, approximately 0.030 ppm at 25°C and one atmosphere, based on mild endpoints of headache, nausea, and physiological responses to odor. The value is a health-protective one-hour reference level. It is not a source-gas limit, an instantaneous alarm level, or a demonstrated threshold of serious toxic injury.

EPA’s Acute Exposure Guideline Level framework is better suited to acute leak-response decisions because it was developed for short-term airborne exposures experienced by the general public during accidental or emergency releases. It distinguishes among materially different levels of health consequence:

- AEGL-1: Notable discomfort, irritation, or certain asymptomatic nonsensory effects that are transient, reversible, and nondisabling.
- AEGL-2: Irreversible or other serious, long-lasting adverse health effects or an impaired ability to escape.
- AEGL-3: Life-threatening health effects or death.

EPA's one-hour hydrogen sulfide values are 0.51 ppm for AEGL-1, 27 ppm for AEGL-2, and 50 ppm for AEGL-3. The OEHHA acute REL is therefore approximately 17 times lower than EPA's one-hour AEGL-1 and approximately 900 times lower than EPA's one-hour AEGL-2. This comparison does not establish that concentrations below an AEGL are acceptable routine ambient conditions. It demonstrates that odor awareness, conservative screening, mild reversible effects, serious acute effects, and life-threatening exposure are different toxicological and response categories that should not be collapsed into a single regulatory trigger.

CIPA requests the use of EPA's concentration- and duration-specific AEGL framework, or another scientifically supported concentration-and-duration framework, to place potential acute public-health consequences in context. The final regulation should distinguish an EDS investigative alert from an independently applicable emergency-reporting or public-protection threshold. These comments do not request a new tiered response program or any new notification, evacuation, modeling, or corrective-action duty beyond SB 1137 and other existing law. At a minimum, the regulation should provide that:

1. An EDS alert may initiate an operator-selected, site-appropriate investigation under the approved response protocol; it does not by itself establish receptor exposure or an acute public-health emergency.
2. The significance of confirmed measurements should be evaluated using the concentration, duration, location, meteorology, instrument uncertainty, and available source-attribution information.
3. Community notification or emergency action under this regulation should occur only when the objective criteria in the final rule and the statutory sequence are met, while preserving independently applicable emergency-release reporting requirements.
4. Where an agency or operator uses AEGLs or other duration-based benchmarks, the comparison should use the corresponding actual or reasonably anticipated exposure duration rather than treating a momentary reading as equivalent to a completed one-hour exposure.
5. Any regulatory escalation should consider available evidence such as background concentration, instrument uncertainty, persistence, meteorological conditions, receptor location, and confirmatory information; no single item should be mandatory where it is unavailable or unnecessary.

At minimum, the final regulation should not treat exceedance of an odor-influenced, mild-effect OEHHA REL as confirmation of an acute public-health threat. Lower values may appropriately support early leak detection and investigation, but mandatory public-health actions should be based on a toxicological framework that distinguishes the concentration, duration, and severity of potential effects.

The Discussion Draft sections § 93504(b)(3) and 93504(d), the methane-surrogate methodology can produce impractically low alarm and detection thresholds.

The operational consequence of the proposed methane-surrogate methodology can be illustrated using a gas composition of 72 percent methane and 10,000 ppmv hydrogen sulfide. This example is presented solely to test the mathematical and technical consequences of the proposed methodology and is not

intended to characterize any particular facility, source, or current operating condition. Using consistent units, the methane-to-hydrogen-sulfide ratio is:

$$720,000 \text{ ppmv methane} \div 10,000 \text{ ppmv H}_2\text{S} = 72:1$$

The OEHHA portion of the Discussion Draft lists the hydrogen sulfide acute REL as 30 ppbv. Applying that value to the 72:1 methane-to-hydrogen-sulfide ratio produces the following methane-surrogate alert threshold:

$$\begin{aligned} 30 \text{ ppbv H}_2\text{S} \times 72 &= 2,160 \text{ ppbv methane} \\ 2,160 \text{ ppbv} &= 2.16 \text{ ppmv methane} \end{aligned}$$

Section 93504(d) would then require the EDS to have a detection limit at least three times below the alert threshold:

$$\begin{aligned} 2.16 \text{ ppmv} \div 3 &= 0.72 \text{ ppmv methane} \\ 0.72 \text{ ppmv} &= 720 \text{ ppbv methane} \end{aligned}$$

Accordingly, the calculated methane-surrogate alert threshold is only 2.16 ppmv above the established methane baseline, and the resulting required instrument detection limit is 0.72 ppmv, or 720 ppbv. These values are not independently selected thresholds; they are the direct mathematical result of applying the Discussion Draft's 30 ppbv hydrogen sulfide value to the illustrative composition above.

This example demonstrates that the proposed methodology can convert a very low OEHHA ambient concentration into an extremely low methane-surrogate alert threshold and a sub-1-ppmv instrument detection requirement. Although the draft allows an operator to establish a site-specific methane baseline, establishing a baseline does not demonstrate that a field instrument can reliably detect a 2.16 ppmv increase above that baseline with the sensitivity, precision, and consistency required by the draft. Fence-line measurements are affected by changing wind direction, atmospheric dispersion, intermittent emissions, temperature, humidity, instrument drift, interferences, and ordinary short-term background variability. Under these conditions, an EDS may have difficulty continuously and reliably distinguishing such a small methane increase from normal fluctuations. This may generate nuisance alarms or apparent exceedances that cannot be reliably attributed to monitored equipment.

The concern demonstrated by the example is the unrealistic operational result produced when the draft's 30 ppbv hydrogen sulfide value is applied to an upstream gas composition and then combined with the requirement for an instrument detection limit three times below the calculated methane alert threshold. The final rule should evaluate the reliability of the resulting field measurement requirement rather than assuming that a mathematically derived threshold is technically achievable.

Repeated nonactionable alarms would consume operator and agency resources, reduce confidence in the alarm system, and potentially obscure releases that warrant meaningful investigation. A threshold may be mathematically derived from the proposed methodology without being technically reliable or operationally useful as a continuous outdoor alarm.

CIPA requests CARB should evaluate the methane alert thresholds and corresponding instrument detection limits that the proposed methodology would produce using representative upstream oil and gas compositions. Before adopting the final standards, CARB should demonstrate that commercially available EDS technology can reliably:

1. Detect a 2.16 ppmv or similarly calculated methane increase above an established outdoor baseline;

2. Achieve the resulting 0.72 ppmv detection limit;
3. Maintain the required precision at the calculated alert threshold under actual field conditions; and
4. Distinguish facility emissions from normal background variability without generating excessive nuisance or nonactionable alarms.

Where a calculated threshold cannot be reliably measured under field conditions, reliably distinguished from background variability, or maintained within the required precision criteria, the regulation should allow a practical minimum threshold, confirmatory monitoring, direct-source detection, or another technically achievable monitoring approach.

Discussion Draft section § 93503, final paragraph; compare Public Resources Code § 3283(b). The draft requires a response plan for community and emergency-service notification “if needed” when an alert indicates that a toxic is “likely” to impact a sensitive receptor, but neither term is defined. A monitor near equipment may alarm while the nearest receptor is much farther away and modeled concentrations at that receptor remain below the applicable health benchmark. Premature public notice without actionable information may create unnecessary alarm. Section 3283(b) specifically requires a communication plan when a source is not identified and stopped within 48 hours, while also preserving other applicable hazardous-release reporting duties.

CIPA requests the CARB define objective notification triggers based on the totality of available information, which may include source attribution, wind direction, duration, receptor location, measured concentration, screening or modeled information when already available, and independently applicable emergency-release thresholds. Do not require real-time dispersion modeling, receptor monitoring, or definitive source attribution as a new condition of every alert response. Clarify that an equipment-area alert alone does not require community notice absent a reasonable indication of receptor impact, while preserving immediate reporting independently required by law and the statutory 48-hour communication-plan requirement.

Additional Concerns with the Discussion Draft

CIPA is disappointed in a lack of accommodation for operators in air districts. For example, the SCAQMD does not allow leaks at all⁶, therefore submitting an air model claiming potential leaks immediately puts the operator out of compliance with air district rules. Those operators need to have this rule address when their model shows zero leaks, otherwise they would be modeling non-compliance. In these circumstances, the rule could achieve equivalent results without these costs.

Similarly, SCAQMD requires any leak to be repaired in one day⁷, therefore the requirement in the Discussion Draft to generate a neighbor notification program is not relevant and should be removed. The Discussion Draft does not take into consideration the local air district regulations. The Discussion Draft actually creates legal challenges for the air districts and operators. Essentially, these draft rules are forcing the operators to claim they are not compliant with the local air district rules. The draft rules should incorporate provisions for operators in certain air districts allowing for equivalent compliance.

⁶ Rule 1148.1(d)(8) and Rule 203(b)

⁷ SCAQMD Rule 1173

The proposed rules on downtime of the sensors, maintenance and calibration are unrealistic for normal operations, especially for small operators.

The Discussion Draft does not have an accommodation for on-site permitted releases that are not leaks, i.e. scheduled maintenance. This is a significant oversight in the Discussion Draft. Operators need to be able to perform legal, permitted and safety required activities without triggering leak alarms in the EDS system.

Threshold limits need to be established by CARB, not the operator. If an operator proves that the threshold will not ever be reached, the operator should be able to apply for an exemption. These systems are not intended to alert operators of all emissions, as certain activities are permitted under facility operating conditions. Instead, EDS required by SB 1137 are specifically intended to identify leaks, which are caused by faulty equipment or component failures. CIPA would appreciate additional discussion with CARB on this topic.

CIPA is concerned with the scientific basis of the emission studies being presented as they are not based in California under California rules and laws. The proposed science is comparing apples to oranges. The field investigations conducted in California by Community-based organizations such as the “Youtube video playlist hosted by Earthworks” should not be viewed as scientific evidence and do not follow the scientific method⁸.

CIPA does not believe CARB has adequately justified why third-party verifiers are required. It is an expensive add-on that provides no emission reductions and is not required in SB 1137. An operator attestation would serve a similar enforcement function. The purpose of record keeping requirements is to store records for a potential future audit. This requirement already fulfills the intent of holding operators accountable and a mandatory audit is disproportionate and causes unnecessary costs. Having a third-party verification scheme is a very expensive add-on feature. CARB must look no further than its own MRR or LCFS programs for cost implications to both regulated entities AND to the agency. 3PV is a whole program in and of itself^{9,10}. We recommend removal of this entire concept.

Implementation Specific Concerns with the Discussion Draft

The Discussion Draft is built on several foundational assumptions, which have not been justified and if they are not borne out, will have devastating impacts on the sector.

Assumption #1-- CARB and CalGEM will be able to approve *all* the unique LDRP plans within a year. There could be multiple thousands of these unique documents to review, and as previously noted, the consequences of the state delaying approvals would result in *full suspension of operations*. It will produce a takings claim if the operator is required to shut down because of a CARB regulation imposing an unrealistic workload on the agencies, i.e. approving all LDRPs within the 1-year timeframe. It takes years for CalGEM to approve UIC plans. Forcing an operator to shut down because the State agencies didn't complete their job will have a wide-ranging ripple impact to operators, their employees and their local tax bases. This issue becomes more critical if each of the

⁸ https://ww2.arb.ca.gov/sites/default/files/2026-06/Performance_Standards_TSD_V10_QC%20version_ADA.pdf

⁹ <https://ww2.arb.ca.gov/lcfs-verification>

¹⁰ <https://ww2.arb.ca.gov/verification>

plans contains a uniquely designed EDS system. The Discussion Draft is setting the agencies up for simultaneous review.

Assumption #2: Capital costs will only be expended in the first two year. Slide 24 on the staff presentation¹¹. CIPA disagrees with this assumption.

Assumption #3: There is adequate, and affordable, laboratory and consultant resources to conduct all that this regulation requires in a timely manner.

The Appendix B flowcharts below illustrate how complex this regulation is for compliance entities to follow. CIPA encourages CARB to revisit the requirements of SB 1137 and work with compliance stakeholders to simplify this proposed regulation.

Cost Concerns of the Discussion Draft

The program becomes exponentially more expensive, for both operators and the implementing/approving agencies, because it is completely bespoke. CIPA appreciates the flexibility associated with the regulation, but without simplified models and some default assumptions, the program is estimated to put significant percentage of operations out of business from the start. It is simply too expensive.

Smaller operators can't afford this level of work and will be put out of business. CIPA requests that CARB include the cost associated with small operators going out of business—losses of local taxes, employment, and/or community investments. Additionally, the SRIA should examine what the fixed costs are for a minimum EDS and compare that to the economics of small operators to see exactly what percentage of total gross revenue would need to be dedicated to SB 1137 monitoring compliance.

CARB also should identify how the costs of this proposed rule will be judged, i.e. the cost metric. It is under the banner of AB 32's "cost-effective" threshold? Or Air District BACT/BARCT guidelines? Is it an Air Toxic Control Measure cost evaluation? If there is not a metric, and therefore no threshold at which this rule is 'too expensive', then that determination should be clearly stated. Whatever the line that is being evaluated against needs to be clearly articulated in the SRIA and the Initial Statement of Reason (ISOR).

False positives due to low alert levels, or neighbor emissions (landfills, livestock, exempt NG infrastructure, natural/fugitive seeps) will be a significant resource drain. Locations that back up to farms, seeps or landfills cannot create facility-specific baseline data. Alerting the operators that there are cows next door will devalue the program completely. Creating neighborhood panic (and an issue of public safety) over non-production methane emissions from neighboring livestock, landfills or pipelines needs to be addressed. LDAR is far more superior in these situations¹².

Requiring a single static alert level for each sensor is cost excessive with no commensurate environmental benefit. As currently defined, the alert level per sensor will be calculated by AERMOD based on the combination of worst-case assumptions for REL ratio to be used, for the wind direction and for local atmospheric conditions. As an example: With the wind blowing away from any sensitive

¹¹ <https://ww2.arb.ca.gov/our-work/programs/sb-1137-health-protection-zone/senate-bill-1137-meetings-and-workshops>

¹² See SCAQMD Rule 1148.1 Staff Report

receptor any recorded emission (including permitted ones) creates an exceedance with all the related follow-up costs. Instead, CARB should implement the ability to utilize variable alert limits based on the local wind conditions and based on what source could cause an impact. It will also force it to be ultra conservative as it will need to address all criteria at once. This will result in a high number of false positives which each require personnel responses, which can be very costly. Having the ability for a more dynamic alert level is an option to save costs without changing the effectiveness of the rule.

Facilities without a sampleable natural gas stream are an issue. Section 93504(b)(1) presumes a sampleable natural gas stream, requiring collection of gas-composition samples by Method 18, TO-15A, or API MPMS 14.1. Some facilities, for example, certain heavy-oil or low-gas sites, may not have sampleable natural gas stream, and therefore cannot perform the compositional source testing the section requires. The draft provides no alternative characterization pathway for such sites.

Section 93504(b)(2) computes the toxic of highest concern from the compound-specific acute risk factor of Equation 1 (Pollutant Mass Percentage divided by the acute REL), after averaging compositional measurements as an arithmetic-mean species mass percentage under (b)(2)(A). The basis on which "Pollutant Mass Percentage" is taken, and the mole-to-mass conversion, are not stated. Because benzene's molecular weight is roughly five times methane's, and laboratory reports are commonly issued on a mole basis, the unstated conversion alone can change which compound is identified as the toxic of highest concern. CARB should clearly state that all quantities entering Equation 1 shall be expressed on a consistent mass basis, and that where laboratory results are reported on a mole basis the mole-to-mass conversion shall be performed and shown, with the complete numerical walk-through fixed in the incorporated protocol.

The costs of this proposal are significantly understated. Additional costs for the operator include:

- Increases in CalGEM staff to enforce these rules, as all CalGEM costs are borne by operators.
- Significant Data storage requirement. Secondary costs such a data storage for five years of meteorological data as requested is a significant cost driver without any emissions benefits.
- Locations that do not have cell service or internet connection available will be subject to addition infrastructure costs.

The SRIA should therefore include these.

Full meteorology station costs are unnecessary vs. only requiring wind and temperature stations. EDS systems do not need full weather stations with atmosphere pressure, etc. It is an unnecessary cost driver. This is an area where CARB can determine what is needed out of SB 1137 language, save thousands per site and not impact the rule's effectiveness.

Having 3,000 plus individually crafted LDRPs will be extremely inefficient and unnecessarily expensive. Not having a template or guidance document will lead to operators over/under developing LDRPs. For the reviewing agencies, this non-standard formatting will drastically slow down review times (with no regulatory off-ramp if the agency is the cause of delay). This is a significant CIPA concern as the longer the review takes, the shorter the window for implementation. This is itself a driver of costs. Approvable examples and guidance documents need to be provided well before LDRPs are due, and maybe even before this regulation is in effect.

GHG Leakage Concerns with the Discussion Draft

AB 32 requires CARB to minimize GHG leakage. This rule exacerbates it. Demand by Californians for liquid fuels will not be diminished by this regulation, yet the added costs will drive smaller operators out of business. They feedstocks will need to be produced elsewhere around the world, thus ‘leaking’ California emissions and jobs elsewhere. This issue of shutting down wells also has significant ripple impacts to local economies.

Enforcement Concerns with the Discussion Draft

It is unclear which agency would be enforcing this whole program and what the costs of non-compliance are to operators. The Discussion Draft doesn’t have a standard Enforcement Section. This leaves a lot of questions about regulatory risk unanswered. Risk is expensive and must be a component of the business decision to maintain or shut down operations.

The Discussion Draft is a CARB regulation. Therefore, does that mean CARB’s general enforcement authority¹³, which can be tens of thousands of dollars per day for willful non-compliance, is in play? For example, if a small operator deems the costs of compliance prohibitive and doesn’t spend the resources to develop a LDRP by July 1, 2028, does the penalty clock start? Will NOV’s be issued? Can they operate until July 1, 2030, when ‘full implementation’ is required? What enforcement role does CalGEM have before July 1, 2030? What enforcement role does CARB play after July 1, 2030?

Will there be an appeal process if a LDRP is deemed deficient? Which agency has final say if there is a disagreement between parties?

What is the timeframe for penalty risk if at the 3-year or 5-year mark an operator’s system is deemed out of compliance?

LDRP’s will be multi-faceted. Can a deficiency finding result in multiple violations?

Section 93504(n)(2) notes that “The independent performance audit shall be documented in a report that shall be signed by the party that conducted the independent performance audit, certifying under penalty of law...”. This reference does not provide clarity on who the enforcing entity will be, which law, or the level of enforcement risk associated with a deficiency.

There needs to be clear understanding of the enforcement provision details prior to this regulation being adopted—besides the huge statutory hammer of “**operator shall suspend all production and injection operations**”.

Conclusion

As written, this proposed rule is overly complicated in detail, but still vague in key planning areas. It unnecessarily expands the requirements of SB 1137, and its cost burden will have an immediate and

¹³ <https://ww2.arb.ca.gov/our-work/topics/enforcement>

direct impact on operators leading to local economic harm and measurable GHG leakage out of the State.

The last barrel of oil used in California, should be produced in-state with all the local, regional and statewide environmental, health and safety and labor standards ensured to be used. California environmental and worker leadership cannot include looking the other way through direct or indirect promotion of foreign crude supplies.

We appreciate the continued stakeholder dialogue, and we look forward to working with CARB in the coming months to ensure these regulatory amendments include all possible cost-containment provisions.

Sincerely,

Rock Zierman
Chief Executive Officer
California Independent Petroleum Association

CARB CC: Walter Ham walter.ham@arb.ca.gov
Lou Dinkler louis.dinkler@arb.ca.gov
CalGEM CC: Heather Arias Heather.Arias@conservation.ca.gov
Pete Beskas Pete.Beskas@conservation.ca.gov
Rohit Sharma Rohit.Sharma@conservation.ca.gov

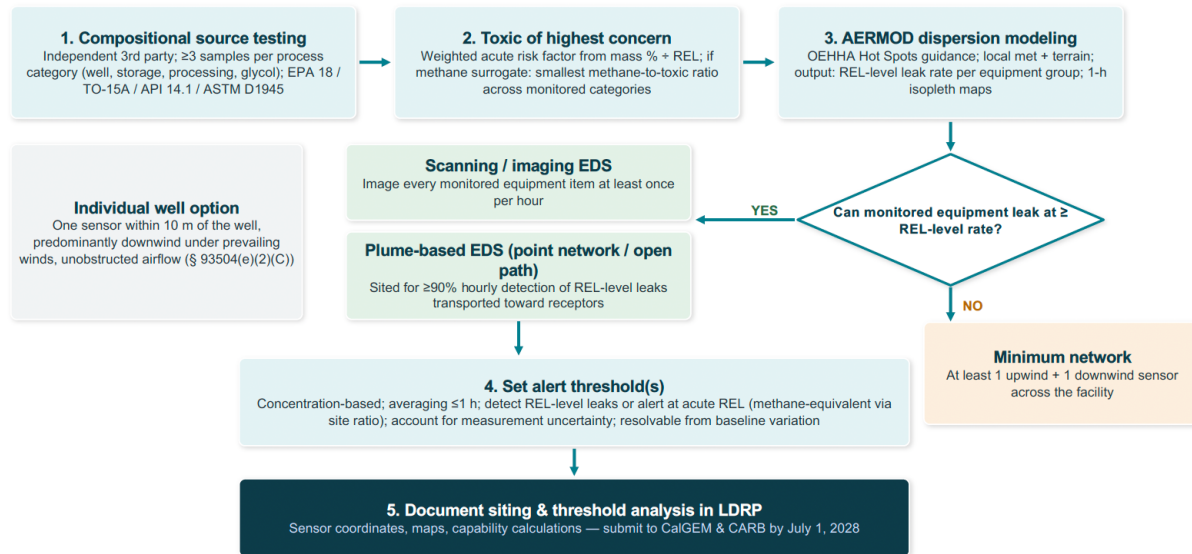
Appendix A –Cost Drivers per Site

CARB SB 1137 EDS Compliance Cost — Summary Dashboard		
Source: Title 17 CCR §§93500–93506 CARB Discussion Draft V6_ADA		
#	Cost Category	Regulatory Citation
ONE-TIME / SETUP COSTS		
A	LDRP Development & Regulatory Planning	§93503; §93504(b)(4); §93504(m)
B	Natural Gas Chemical Composition Testing	§93504(a)-(b)
C	Air Dispersion Modeling (AERMOD)	§93504(h)
D	EDS Siting & Alert Threshold Analysis	§93504(e)-(f)
E	EDS Equipment Procurement	§93502(5); §93504(c)-(e); §93504(i)-(k)
F	EDS Installation	§93504(l); §93504(m)(7)(E); §93504(m)(8)(A)
G	QAPP Development & Planning	§93504(m)(8)
ANNUAL / RECURRING COSTS		
H	EDS Operations & Maintenance	§93504(c); §93504(d)(3); §93504(m)(8)
I	Data Management & Reporting	§93504(k); §93504(m)(8)(C); PRC §3286
J	Personnel / Staffing	§93504(l)-(m)
K	Independent Performance Audits	§93504(n)
L	Air District & Multi-Agency Coordination	§93505; §93503(e)
PER-EVENT / CONTINGENCY COSTS		
M	Leak Detection & Response Events	§93503; §93504(j)
N	EDS Failure & Downtime Management	§93504(c); §93504(m)(8)(H)
O	Regulatory Non-Compliance Risk	§93503(c); PRC §3283
P	EDS Technology Upgrade / Expansion	§93504(n)(1)(B); §93504(m)(8)

Appendix B – Discussion Draft Compliance Flow Charts

FLOWCHART 1 — BEFORE OPERATION

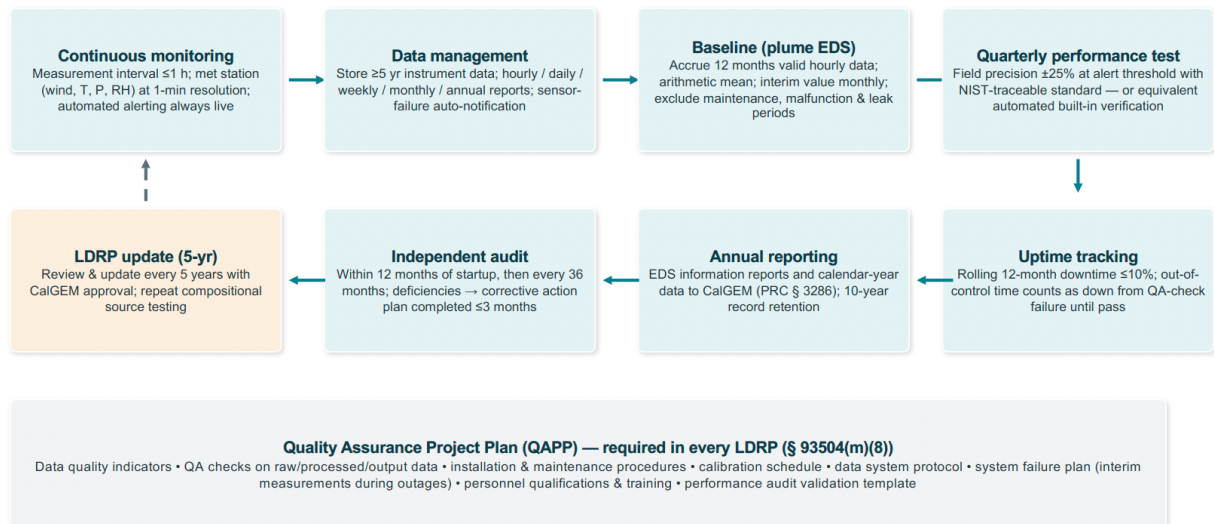
EDS siting and alert threshold setting (draft § 93504(a), (b), (e), (f), (h))



Source: CARB Discussion Draft Reg Text (Jan 2026) §§ 93504(a)-(h); CARB SB 1137 Workshop, July 16, 2026. REL = OEHHA acute Reference Exposure Level.

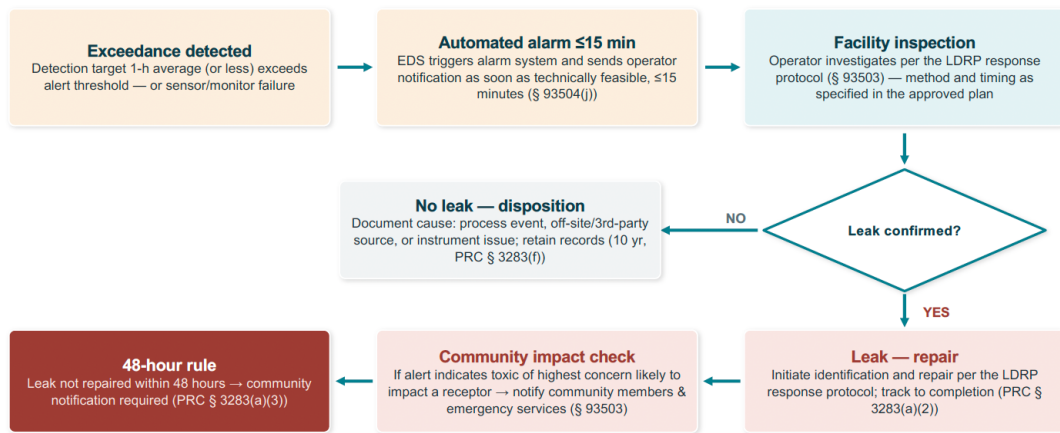
FLOWCHART 2 — ROUTINE OPERATION

General operations and QA cycle (draft § 93504(c)-(n))



Source: CARB Discussion Draft Reg Text (Jan 2026) § 93504(c)-(n); PRC § 3286 reporting. Downtime includes any sensor failing to collect/transmit data or out-of-control.

FLOWCHART 3 — EVENT RESPONSE

Alert exceedance and follow-up (draft §§ 93503, 93504(j); PRC § 3283)**Open items in the draft**

No investigation clocks, leak-confirmation criteria, false-positive disposition, or 48-hour clock start are defined — each LDRP must fill these gaps; a key public-comment opportunity (due Aug 17, 2026).

Source: CARB Discussion Draft Reg Text (Jan 2026) §§ 93503, 93504(j); PRC § 3283(a). Alert thresholds per § 93504(e)(3).

Attachment C - Where CARB's Discussion Draft Exceeds Its Statutory Authority Under SB 1137

A provision-by-provision comparison of the CARB Discussion Draft Regulation (V6) against the authorizing statute — codified at Public Resources Code §§ 3280–3290.

SB 1137 established oil and gas health protection zones within 3,200 feet of sensitive receptors and assigned CARB a specific, bounded role: adopt performance standards for continuously operating emissions detection systems (EDS) to be included in operator leak detection and response plans (LDRPs). The statute is explicit about what it delegates to CARB versus CalGEM, the timelines operators must meet, and the technical outcomes required (rapid detection, alarm capabilities, community notification).

The Discussion Draft, however, moves well beyond performance standards into prescriptive operational mandates and imposes wholly new requirements — audits, meteorological monitoring, baseline data collection, and quality assurance plans — without statutory basis. The table below identifies each instance, with the relevant statutory text and the mechanism of overreach.

CATEGORY KEY

ROLE EXPANSION CARB assumes authority the statute reserves to CalGEM or leaves to operators

NEW MANDATE Requirement with no analog in the authorizing statute

TECH PRESCRIPTION Statute speaks in outcomes; regulation mandates specific methods, tools, or tolerances

ISSUE AREA	SB 1137 PROVIDES	REGULATION DOES	BASIS OF EXCESS	CATEGORY
02 CARB Review of Individual LDRPs	PRC § 3283 assigns CARB the task of adopting <i>performance standards</i> for EDS — a legislative/rulemaking function. LDRP review and approval authority belongs to the <i>division</i> (CalGEM). PRC § 3290 requires an MOU to delineate responsibilities.	Reg. § 93504(o) directs CARB's Executive Officer to review each LDRP and notify CalGEM in writing if the EDS is "incomplete or deficient." If satisfactory, the Executive Officer issues a written determination. (§ 93504 (o))	The statute distinguishes standard setting (CARB) from LDRP approval (CalGEM). CARB's Executive Officer issuing individual facility determinations constitutes quasi-adjudicatory authority the legislature did not grant. This also collapses the MOU-based delineation of responsibilities into a unilateral CARB role.	ROLE EXPANSION
03 Dual Submission to CARB and CalGEM	PRC § 3283 directs operators to submit LDRPs to the <i>division</i> (CalGEM). No provision requires simultaneous submission to CARB.	Reg. § 93504(m)(8)(J) requires operators to provide LDRP information reports to CalGEM <i>and</i> to CARB, and to furnish the most recent calendar year of historical EDS data to CARB on request. (§§ 93503, 93504 (m) (8) (J) – (K))	Creating a parallel submission obligation to CARB imposes compliance costs the statute did not authorize and effectively extends CARB's role from standard-setter to ongoing data recipient and supervisor — without legislative direction. The MOU (PRC § 3290) was the intended mechanism for any expanded coordination.	ROLE EXPANSION
04 Independent Third-Party	SB 1137 contains no mention of independent audits of any kind. The statute requires LDRPs,	Reg. § 93504(n) mandates: a first independent audit within 12 months of	Third-party audit mandates are a substantial compliance obligation — in cost and logistics — with no statutory foothold. CARB's	NEW MANDATE

ISSUE AREA	SB 1137 PROVIDES	REGULATION DOES	BASIS OF EXCESS	CATEGORY
Performance Audits	EDS, alarm systems, and reporting — all operator-prepared or agency-reviewed.	EDS installation; subsequent audits every 36 months and within 3 months of material modification; audit reports certified "under penalty of law"; and a corrective action plan within 3 months if deficiencies are found. (§ 93504 (n))	general authority under Health and Safety Code § 39600 cannot supply the specificity needed to impose ongoing third-party auditing of individual facilities when the subject-matter statute is silent on it.	
05 Specific AERMOD Modeling Requirement	PRC § 3283 requires EDS capable of rapid detection of target chemicals "before emissions impact surrounding communities." No specific modeling tool or methodology is referenced.	Reg. § 93504(h) mandates use of EPA's AERMOD dispersion model, following OEHHA Air Toxics Hot Spots guidance, with submission of isopleth maps and sensitivity analysis. (§ 93504 (h) (1) – (4))	Mandating a specific modeling tool (AERMOD) and external guidance methodology goes beyond performance-standard-setting. The statute requires an outcome (community-protective detection); CARB has prescribed a specific analytical method without legislative authority, effectively locking operators into a single technology pathway.	TECH PRESCRIPTION
06 NIST-Traceable Calibration and Precision Tolerances	PRC § 3283 requires EDS to detect target chemicals and generate alarms. No calibration standards, precision tolerances, or verification protocols are specified.	Reg. § 93504(d) mandates: minimum detection limits 3× below alert thresholds; manufacturer-documented precision ±15%; quarterly NIST-traceable verification; field precision ±25%; and calibration or replacement of any failing sensor. (§ 93504 (d) (1) – (3))	Numerical precision tolerances and NIST-traceable calibration protocols are detailed engineering specifications, not performance standards. While CARB can establish what a system must detect, specifying internal accuracy margins, calibration standard provenance, and a quarterly verification cadence moves from performance specification into equipment-level prescription without statutory authorization.	TECH PRESCRIPTION
07 Continuous Meteorological Monitoring	SB 1137 contains no reference to meteorological monitoring. The statute focuses on detecting chemical emissions and generating community alarms.	Reg. § 93504(i) requires continuous sensors measuring temperature, pressure, humidity, wind speed, and wind direction at one-minute resolution per U.S. EPA QA Handbook specifications, with five-year on-site data storage. (§ 93504 (i) – (i) (2))	A free-standing meteorological monitoring system is a separate operational obligation not contemplated by the statute. This requirement — including the storage mandate — imposes infrastructure costs with no statutory basis, going well beyond EDS performance standards.	NEW MANDATE
08	PRC § 3283 requires EDS to be included in LDRPs	Reg. § 93504(g) requires 12 months of valid	A mandatory one-year pre-operational data collection period	NEW MANDATE

ISSUE AREA	SB 1137 PROVIDES	REGULATION DOES	BASIS OF EXCESS	CATEGORY
12-Month Pre-Operational Baseline Data Collection	and implemented on the statutory schedule. No pre-operational data collection period is referenced.	hourly measurements before an EDS alert baseline can be established, with detailed exclusion criteria for maintenance days, malfunction periods, and days with ≥ 5 missing hourly values. (§ 93504 (g) (1) – (3))	is a de facto one-year moratorium on EDS commissioning. The statute requires implementation by fixed dates; requiring prior baseline data substantively extends compliance timelines beyond statutory authorization while also imposing an obligation the legislature never enacted.	
⁰⁹ Quality Assurance Project Plan (QAPP)	SB 1137 requires an LDRP containing an EDS, alarm systems, and response protocols. No quality assurance planning framework or documentation system is mentioned.	Reg. § 93504(m)(8) mandates a comprehensive QAPP covering installation procedures, data-processing protocols, corrective action tracking, system failure plans, personnel qualifications, and maintenance schedules. (§ 93504 (m) (8) (A) – (I))	Quality assurance project plans are an EPA-derived framework not referenced in SB 1137. Transplanting a comprehensive QAPP regime onto oil and gas EDS operators imposes a documentation and management system with no statutory authorization, creating ongoing compliance obligations the legislature did not contemplate.	NEW MANDATE
¹⁰ Ten-Year Record Retention	PRC § 3286 establishes annual operator reporting requirements. No retention period is specified anywhere in the statute.	Reg. § 93504(m)(8)(L) requires retention of all EDS data and records of nonoperation for 10 years, with mandatory production to "any agency involved in review" on request. (§ 93504 (m) (8) (L))	A 10-year retention mandate is a substantial data management obligation. While some retention period may be implied by an annual reporting scheme, a specific 10-year horizon and the obligation to produce records to any reviewing agency on demand go beyond what the statute's reporting framework supports.	NEW MANDATE
¹¹ 15-Minute Alert Notification Deadline	PRC § 3283 requires EDS with "alarm capabilities" and response protocols for leak identification within 48 hours. No time limit on the alert notification itself is specified.	Reg. § 93504(j)(1) requires the EDS to automatically trigger and transmit a notification no later than 15 minutes after an alert threshold is exceeded. (§ 93504 (j) (1))	While prompt alert standards are consistent with the statute's intent, prescribing a specific 15-minute window crosses from outcome-based performance standards into operational mandate. The legislature set a 48-hour leak identification deadline and left alarm timing to CARB in general terms; a specific 15-minute requirement exceeds what the statute explicitly delegates.	TECH PRESCRIPTION
¹² 10% EDS Downtime Cap	PRC § 3283 requires "continuously operating" EDS. No	Reg. § 93504(c)(2) establishes that rolling 12-month average	The 10% figure may be defensible as a performance standard implementing "continuously	TECH PRESCRIPTION

ISSUE AREA	SB 1137 PROVIDES	REGULATION DOES	BASIS OF EXCESS	CATEGORY
	numerical availability floor or definition of "out-of-control" sensor conditions is provided.	operational downtime must not exceed 10% and defines "operational downtime" to include any sensor failing to collect or transmit data or deemed "out-of-control." (§ 93504 (c) (2) (A) – (B))	operating," but the specific numerical threshold and the definition of "out-of-control" conditions are not required by statute. These prescriptive choices may not survive reasonable necessity review given the absence of any legislative guidance on the appropriate availability standard.	
¹³ Non-Preemption of Air District Authority	SB 1137 does not address the relationship between CARB's EDS regulations and air district authority. The statute is silent on preemption.	Reg. § 93505 expressly states: "This regulation does not preempt any more stringent requirements imposed by any air district." (§ 93505)	A non-preemption clause preserving potentially unlimited air district layering could expose operators to an indeterminate stack of requirements on top of an already prescriptive CARB regime. The legislature did not address this, making CARB's resolution of the question — in a way that could multiply compliance burdens — an exercise of authority not granted.	ROLE EXPANSION
¹⁴ Site-Specific Toxic Identification vs. Regional Designation	PRC § 3283 charges CARB to identify "chemical constituents...of highest concern in the region" as detection targets — a regional, agency-level determination.	Reg. § 93504(b) requires each operator to conduct site-specific composition testing (minimum 3 samples per process category, by qualified independent parties) to identify the facility-specific "toxic of highest concern." (§ 93504 (b) (1) (A) – (E))	The statute placed the "toxic of highest concern" identification at CARB — a rulemaking function. The regulation shifts this to individual operators through facility-by-facility testing, converting a single agency determination into thousands of compliance obligations and reallocating authority in a way the statute does not support.	ROLE EXPANSION
¹⁵ GPS Coordinate Precision Specifications	SB 1137 requires operators to submit sensitive receptor inventories and maps. No GPS standard, datum, or coordinate precision is specified anywhere in the statute.	Reg. § 93504(m)(2)(A) requires equipment locations reported "to an accuracy and precision of five (5) decimals of a degree using North American Datum of 1983 (NAD 83)." (§ 93504 (m) (2) (A))	Five-decimal-degree GPS precision (~1.1-meter resolution) and a specific geodetic datum (NAD 83) are highly granular technical specifications with no basis in the statute. Naming a specific mapping standard is the clearest example of CARB using its rulemaking pen to write requirements the legislature left entirely unaddressed.	TECH PRESCRIPTION