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Edie Chang
Deputy Executive Officer
California Air Resources Board

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

Re: Comments on the 2026 Discussion Draft Performance Standards for Continuously Operating Emissions Detection Systems Required by SB 1137

Dear Ms. Chang and the SB 1137 Rule Development Team:

Crimson Resource Management Corp. (Crimson) appreciates the opportunity to comment on the California Air Resources Board's 2026 Discussion Draft Performance Standards for Continuously Operating Emissions Detection Systems Required by Senate Bill 1137 (Discussion Draft). Crimson operates oil and gas wells and production facilities across California and will be directly responsible for developing, installing, operating, and maintaining emissions detection systems under the final standards.

Crimson generally agrees with the concerns identified by the California Independent Petroleum Association (CIPA) and supports clear and workable standards that allow actual leaks to be detected and addressed before emissions affect surrounding communities. However, the Discussion Draft must provide objective compliance requirements, account for existing air district programs, and recognize the operating conditions of California oil fields. Of particular concern to Crimson are the undefined meaning of a site, overly low alert thresholds, ambiguous technical language, undefined background signal and noise, false alarms, duplicative air district requirements, and cost and technical feasibility. These issues must be addressed to ensure the final standards reliably distinguish actual leaks from permitted emissions, normal background variation, and emissions from non-oilfield sources.

Crimson's 2026 SB 1137 inventory work includes 47 mapped site areas identifying approximately 1,680 unique wells and 73 production-facility records for evaluation. The majority of the mapped areas are within health protection zones. The evaluated assets span multiple fields and include different well types, operating statuses, and tank systems. This scale makes clarity regarding site boundaries, equipment applicability, monitoring coverage, alarms, downtime, and response requirements essential. Crimson's primary comments and concerns regarding these requirements are provided below.

1. Define a site before operators are required to design systems or estimate costs

The Discussion Draft repeatedly relies on site-specific requirements but does not define what constitutes a site. For Crimson, a site could potentially be interpreted as an individual well, a group of wells tied to



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common production equipment, a tank battery, a lease, or a larger operating area. Each interpretation produces a materially different number of Leak Detection and Response Plans (LDRPs), sensors, meteorological systems, samples, data streams, inspections, and annual costs.

CARB must define site before operators are expected to develop monitoring designs or make capital commitments. At a minimum, the definition should explain when multiple wells and shared production equipment may be treated as one site; how geographically separated equipment is addressed; whether non-emitting or water-handling equipment is included; and how inactive equipment, temporary equipment, pipelines, and injection wells are treated. The definition should also allow operators to group functionally connected equipment where one representative monitoring design can meet the required performance standard.

Crimson has identified approximately 47 mapped site areas for planning purposes, but that number is not an admission that the 47 areas constitute 47 separate regulated sites under the final rule. The actual number cannot be determined until CARB adopts an objective site definition and CalGEM confirms HPZ applicability. Requiring an operator to design a site-specific LDRP first and leaving the basic site determination to a later discretionary approval would force substantial resources to be spent before the operator knows the scope of its obligation.

2. Clearly define continuous monitoring and the equipment subject to monitoring

The final regulation should separate definitions from enforceable performance standards and clearly state what constitutes a continuously operating emissions detection system. A regulated operator should be able to determine compliance from the text without relying on future guidance or case-by-case interpretation.

At a minimum, the final standards should define:

- The required monitoring frequency and data completeness necessary to qualify as continuously operating;
- Allowable downtime for calibration, maintenance, repair, loss of power, communications failures, and replacement of malfunctioning equipment;
- Whether backup equipment or an approved alternative monitoring method may be used during planned or unplanned downtime;
- How a site is defined and how many sensors are required based on site configuration, equipment, meteorology, and potential emission sources;



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- Which wells and types of production equipment require coverage, including whether requirements apply differently to inactive equipment, water-handling equipment, underground pipelines, injection wells, or equipment without a sampleable gas stream;
- Whether a representative combined gas sample is acceptable for individual wells tied to a common processing facility, instead of requiring three samples of each item of production equipment;
- Why the smallest constituent ratio must be used rather than an equipment-specific or representative site ratio; and
- The criteria for determining that an alarm is valid and attributable to Crimson's operations before shutdown, notification, sampling, or reporting requirements are triggered.

The definition of production equipment is also too broad if it can be read to include underground pipelines, water injection wells, and other equipment that does not present the same fugitive-emission potential as production tanks or gas-handling equipment. Crimson requests that CARB narrow the definition to equipment with a reasonably foreseeable potential to emit target compounds and establish performance-based requirements that allow an operator to select and justify a monitoring design appropriate for each defined site.

3. Avoid duplicative air district requirements and unintended expansion of CalGEM enforcement

Crimson facilities are already subject to applicable local air district permits, leak detection and repair requirements, vapor-control requirements, inspection programs, and enforcement. The Discussion Draft should identify where compliance with an existing air district requirement provides equivalent or overlapping compliance and should avoid requiring operators to model or report permitted emissions as potential leaks.

This coordination is especially important because Public Resources Code section 3282 requires facilities emitting vapors to comply with applicable air district requirements and requires suspension of facility use when those requirements are not met. When combined with the proposed emissions detection and alarm framework, an unclear standard could effectively give CalGEM a role in determining air district compliance or directing suspension of equipment regulated and permitted by another agency.

For Crimson, this could affect ordinary production and water-handling equipment, including tank batteries, produced-water tanks, heater treaters, separators, and temporary production equipment. A sensor response near this equipment should not, by itself, establish a violation of an air district rule or require suspension. The final regulation should require confirmation that an alarm represents an actual leak from



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the operator's equipment and should preserve the air district's authority to determine compliance with its own rules and permits.

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. This should not be interpreted as requiring EDS for all sites since many sites will not have the ability to trigger the REL. Requiring EDS at sites that cannot reach the REL limit is an unnecessary and impractical cost burden unfairly targeting small/medium-sized operators because the EDS will only detect at levels that the site cannot generate.

3283 (2)(a) The leak detection and response plan shall include a continuously operating emissions detection system designed to provide for rapid detection of target chemical constituents to identify leaks before emissions impact the surrounding communities. Sampling locations and sample inlets shall be sited consistent with local meteorology and best practices.

- This only says that if REL-level detection is required, then an EDS should be designed. Interpreting this as 'all sites require EDS' is a misinterpretation of the regulation.

CARB's own technical discussion recognizes that an EDS is intended to identify leaks caused by faulty equipment or component failures, not every detected emission. The final rule must therefore accommodate permitted venting, scheduled maintenance, safety-required activities, and other authorized releases. Operators must be able to conduct legal and necessary work without automatically triggering a leak determination, community notification, or shutdown.

Crimson requests that CARB:

- Provide an equivalent-compliance pathway for monitoring, inspection, repair, reporting, and response requirements already addressed by an applicable air district program;
- Clarify that permitted, authorized, or routine emissions are not leaks solely because they are detected by an emissions detection system;
- Clarify that an emissions alarm is not, by itself, a determination of noncompliance with an air district permit or rule;
- Require coordination with the applicable air district before CalGEM makes a determination that depends on air district compliance; and



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- Limit suspension requirements to the specific well or production facility confirmed as the source of an actual leak, consistent with the statute.

4. Establish technically reliable alarm thresholds that account for background methane

Outdoor fence-line monitoring occurs under changing wind direction, atmospheric dispersion, temperature, humidity, instrument drift, and short-term background variation. Crimson also operates in areas where methane or other target compounds may originate from neighboring oil and gas operations, pipelines, agriculture, livestock, landfills, vehicles, or other non-Crimson sources.

A fixed annual background value or a single static threshold may not reliably distinguish a leak from normal temporal and spatial variation. Crimson is concerned that the proposed thresholds are too low relative to ordinary field variability and instrument capability. When the signal being evaluated is close to the background noise, the EDS may not be able to reliably determine whether a change is caused by a Crimson leak, a neighboring source, or normal variation. Thresholds set too close to background concentrations could generate repeated nonactionable alarms, unnecessary field responses, sampling, reporting, and shutdowns. Excessive nuisance alarms would consume operator and agency resources and could reduce confidence in alarms that require immediate attention.

The Discussion Draft also uses unclear phrases such as 'account for uncertainty in measured values' and 'quantifiably resolved from temporal variation in the baseline condition.' These phrases do not provide an objective compliance standard. CARB should explain how measurement uncertainty is calculated, how background is established and updated, whether baseline values are added to alert thresholds, and how an operator demonstrates that a signal has been resolved from normal variation.

The final standards should require CARB to demonstrate that the resulting thresholds and instrument detection limits are achievable with commercially available equipment under representative field conditions. Operators should be allowed to use site-specific background data, meteorological information, wind direction, validated source attribution, and variable or conditional alarm thresholds where those methods provide equal or better protection. The regulation should also provide a clear process for documenting and closing alarms attributed to non-operator sources, including agriculture, livestock, landfills, pipelines, and neighboring operations.

5. Evaluate cost and technical feasibility using actual operator inventories

The Discussion Draft could require substantial capital investment and continuing annual expenditures for sensors, meteorological equipment, communications, data storage, modeling, installation, maintenance, calibration, performance testing, audits, sampling, and staffing. These costs will vary materially by the



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number, size, location, and configuration of sites and whether CARB requires equipment-level or site-level coverage.

PRELIMINARY CRIMSON COST ESTIMATE: Using an estimate of approximately \$35,000 per site per year, Crimson's areas represent a gross planning estimate of approximately \$13.475 million annually before accounting for a final site definition. This is a preliminary, order-of-magnitude estimate only. The actual cost cannot be determined until CARB defines a site and clarifies the required equipment, sampling, monitoring, calibration, and data obligations. This estimate does not include the additional resources and manpower that would be required including implementation, system administration and oversight, maintenance and calibrations, and alarm response to the multiple monitoring systems. This additional manpower will add to the total cost of the estimate significantly.

Quarterly bump checks, restrictive downtime provisions, and full meteorological stations at every site may add substantial cost without a corresponding improvement in leak detection. The final rule should allow reduced calibration frequency to manufacturer standards when an operator demonstrates reliable newer technology, reasonable downtime for maintenance and repair, and only the meteorological parameters needed to validate an alarm and determine source direction. CARB should explain why pressure or other full-weather-station parameters are necessary if wind and temperature data are sufficient for the selected monitoring method.

CARB's economic analysis should distinguish between costs expressly necessary to meet SB 1137's performance objectives and costs created by prescriptive modeling, equipment, reporting, audit, or personnel requirements. Before formal rulemaking, CARB should evaluate representative operator inventories and publish assumptions for the number of sites, sensors per site, equipment replacement, useful life, calibration frequency, data management, staffing, and alarm-response events. CARB should also allow lower-cost alternatives that provide equivalent or better leak-detection performance.

The implementation schedule must also account for agency review capacity. Operators should not be required to suspend production because CalGEM and CARB are unable to complete review of a timely and complete LDRP within the statutory approval period. The final regulation should include a clear completeness process, objective review criteria, and protection for operators that timely submit compliant plans but are awaiting agency action.

Requested revisions

Crimson respectfully requests that CARB revise the Discussion Draft before formal notice to:

- Define site before operators must determine the number of LDRPs, monitoring systems, sensors, samples, and annual costs;



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- Provide objective definitions and compliance criteria for continuously operating emissions detection systems;
- Allow site-specific, performance-based monitoring designs and reasonable provisions for maintenance, calibration, downtime, and alternative monitoring;
- Recognize equivalent compliance and avoid duplicating local air district requirements;
- Require confirmation and source attribution before an alarm triggers shutdown or is treated as evidence of noncompliance;
- Adopt technically reliable alert levels that account for measurement uncertainty, background variation, signal noise, meteorology, permitted emissions, and non-operator sources;
- Revise sampling, calibration, downtime, and meteorological requirements to reflect demonstrated equipment capability and actual site conditions;
- Protect operators from shutdown caused solely by agency delay in reviewing a timely and complete LDRP; and
- Complete a transparent cost and feasibility analysis using representative California operator inventories and commercially available technology.

Crimson appreciates CARB's consideration of these comments and is available to provide additional operational information as the standards are developed.

Sincerely,

Bob Demos

Executive Vice President and Chief Operating Officer

Crimson Resource Management Corp.