Angela Thompson

Hello, please see attached comment letter.

SACRAMENTO METROPOLITAN
AIR QUALITY
MANAGEMENT DISTRICT

November 10, 2025

Matt Harrison
Chief, Project Assessment Branch
Industrial Strategies Division
California Air Resources Board

Subject: CARB Proposed LMR Regulation

The Sacramento Metropolitan Air Quality Management District (Sac Metro Air District) appreciates the opportunity to provide comments on the proposed Landfill Methane Regulations (LMR). While we value CARB's work on these regulations and share the goals of reducing pollution from landfills, we note that Sac Metro Air District was notified of the proposed rules only after public notification, leaving very limited opportunity for collaborative discussion. As co-implementers of the regulation, we are disappointed that we were not included in any working groups prior to publication and that the proposal was not brought to CAPCOA or other forums where our experience with these sources could have meaningfully informed the proposed changes.

Given the compressed timeline, our review and submission of comments were conducted on an accelerated basis. Our review identifies several areas of concern that could significantly impact operational requirements, monitoring, reporting, and enforcement, most notably a substantial increase in oversight for districts with MOUs, which translates to significant resource and cost implications. Considering these factors, primarily the issue of resources, we are taking a neutral position on this regulation. We hope that in the future, CARB will engage CAPCOA and local air district resources earlier in the rulemaking process to allow for more thorough review and meaningful input.

The remainder of this letter includes: a summary of our key concerns, a section-by-section summary of comments, and a set of recommendations for CARB consideration.

Key concerns include:

- Substantial increases in monitoring, reporting, and operational requirements, including semiannual liquid level monitoring, continuous pressure monitoring, enhanced well temperature monitoring, recurring exceedance tracking, alternative compliance plans, and unsafe-to-walk surface monitoring. These create significant administrative burdens for both regulated sources and District staff. The resource risk is substantial and cannot be borne by the permit holder; even in a district with a small number of sources, enforcement workload would significantly increase, and these costs cannot reasonably be passed to a few sources.
- Ambiguities in definitions, scope, and applicability, particularly regarding gas collection systems, interior versus exterior wells, component shutdown timelines, and the applicability of federal exemptions for treated fuel engines.

- Enforcement and compliance challenges, including follow-up for alternative monitoring procedures, remotely detected plumes, recurring surface exceedances, and reporting of SEM exceedances across multiple cracks or disturbed areas.
- Potential conflicts with federal regulations, especially for oxygen and temperature limits for engines.
- New reporting pathways via the CARB LMR Reporting webpage, requiring guidance on how the District will access, review, and track submissions, including approvals, alternative compliance, and notifications.
- Funding and Administrative Feasibility: The proposed LMR would substantially increase monitoring, reporting, and enforcement workload for districts. Many landfills are publicly owned, and existing district fee schedules generally do not allow recovery of these costs without rule changes. Given the current economic conditions, it is unlikely that district boards would approve a large fee increase, particularly because it would affect only a small number of sources. Nevertheless, MOUs place the responsibility for implementing and enforcing this regulation squarely on districts. The ISOR estimate of roughly $400,000 statewide (Economic Impacts Assessment, ISOR pp. 140-145) significantly underestimates the true administrative, monitoring, and enforcement burden and does not reflect the actual staff effort required. Without a practical funding mechanism, consistent statewide implementation is at serious risk.

Comments by Section

§95464 – Gas Collection and Control System Requirements

- §95464(a) Design Plan for MSW Landfills: Clarify who has final approval of the design plan—CARB or Districts.
- §95464(b)(1) Gas Collection and Control System Requirements: Clarify which valves or pathways "contribute to venting" and require automatic closure; specify that all pathways allowing landfill gas escape when the gas mover stops must automatically close.
- §95464(b)(2)(A)(2) Sensor Calibration: CARB should provide a list of approved calibration methods; relying solely on manufacturer specifications may not be feasible. (Note: calibration is a requirement of the federal regulations also)
- §95464(b)(3)(A)(3): Clarify whether engines using treated landfill gas or other treated fuels are exempt from oxygen and temperature sensor requirements or provide guidance for alternative monitoring.
- §95464(b)(3)(B)(1): Clarify whether "inlet" and "outlet" points apply to individual wells and engines/flares, or only to overall system points.
- §95464(b)(5)(C): Landfills may need to submit complete lists of monitored components, significantly increasing reporting and review workload.
- §95464(c) Wellhead Gauge Pressure: Clearly establish which wells fall under the regulation.
- §95464(c)(2) Decommissioned Wells: Require verification of appropriate decommissioning and post-decommissioning monitoring; adds significant review workload.
- §95464(d) Wellhead Temperature: Ambiguity regarding interior vs. exterior wells; temperature standard may conflict with existing federal or NESHAP limits.
- §95464(e)(2)–(3) Component Shutdown: Clarify how long a well must remain connected before disconnecting again; implementing this adds new monitoring/reporting workload.

§95469 – Monitoring Requirements

- §95469(a)(1) Surface Emissions Monitoring: Clarify whether sources must develop or adopt alternative monitoring for unsafe-to-walk areas and confirm applicability of standard repair/re-monitoring timelines.
- §95469(a)(2)(B) Corrective Action Timeline: Define "initiated" and require documentation in a log for enforceability.
- §95469(a)(2)(B)(3) Alternative Remedy: Clarify acceptable alternatives to installing a new or replacement well.
- §95469(a)(3) Alternative Corrective Plan: Provide guidance/examples of acceptable measures.
- §95469(a)(4) Recurring Exceedances: Clarify whether thresholds apply only after Rule effective date; guidance needed on counting compliance re-inspections as exceedances.
- §95469(b) Remotely Detected Plumes:
    - Introduces new enforcement trigger; follow-up monitoring required.
    - Monitoring frequency and procedures may significantly increase workload depending on MOU.
    - Estimated coordinates provided by CARB may not reflect exact source; guidance needed on monitoring when source is uncertain.
    - Environmental conditions (rain, high wind) may affect monitoring; guidance needed on alternative methods.
    - Alternative monitoring procedures for plume follow-up require clear approval process.
    - Follow-up results must be reported to CARB per §95470(b)(7).
    - Controlled landfills: 5-day follow-up; uncontrolled: 30-day follow-up; clarify enforcement/reporting expectations.
- §95469(e-g) New Monitoring and Reporting: Monthly wellhead monitoring, weekly monitoring for recurring positive pressures, enhanced temperature monitoring, semiannual liquid level monitoring, wellhead parameter trend analysis, continuous system pressure monitoring—all increase operational and administrative workload. Guidance needed on methods, verification, and enforcement. (Note: Landfills currently perform monthly checks for methane concentration, O2, Static Pressure, and Temperature)
- §95469(e)(3)(B) Oxygen Limits and Temperature Scope: Clarify applicability and reconcile with federal standards.
- §95469(e)(6) Recurring High Oxygen: New oxygen monitoring triggers enhanced monitoring; guidance needed on enforcement, recordkeeping, and verification.

§95470 – Recordkeeping and Reporting Requirements

- §95470(4) Engine Oxygen and Temperature Records: New requirement for internal combustion engines and turbines – adds reporting burden; federal regulations exempt treated fuel engines.
- §95470(b)(4) Quarterly Monitoring Data Report: Submission of all surface, component, and wellhead data in CSV within 15 days of each quarter means significant workload; requires District review under MOUs.
- §95470(b)(8) Electronic submission via CARB LMR Reporting webpage:
    - All reports, notifications, and requests must be submitted electronically; guidance needed on:
        - District access while reviewing submissions.
        - Whether sources must email the District separately.
        - Timing of reporting for approvals (ACOs, SEM, well replacements).

- Affected reports include rationale for failures, alternative compliance, alternative SEM, third re-monitoring, alternative well replacements, root cause analyses, remote plume information, SEM notifications, quarterly data, and annual reports.

§95471 – Test Methods and Procedures

- §95471(c)(1) Surface Emissions Monitoring Procedures: Requires monitoring landfill surface methane using hydrocarbon detectors and inspecting grids including cover penetrations, distressed vegetation, cracks, or seeps.
- §95471(d)-(e) Unsafe-to-Walk & Alternative Monitoring Procedures:
  - Introduces handheld, drone, or rover-mounted sensors with specifications, calibration, and operational requirements. Sac Metro Air District has evaluated alternative monitoring equipment in response to methane plumes detected during satellite flyovers but has found no available technologies that meet the proposed regulatory performance standards. The District has consulted with CARB regarding potential solutions; although some are under development, none are currently viable for compliance, underscoring a significant gap between regulatory expectations and available technology.
  - Follow-up for exceedances ≥200 ppmv (volumetric) or ≥50 ppm-m (column) must occur within 5–10 days.
  - Alternative procedures must demonstrate equivalent methane reductions to quarterly monitoring; guidance needed on review, enforcement, and recordkeeping.
  - Clarification needed on crack-specific limits and follow-up for multiple exceedances.

§95475((19) – Gas Collection System Definition

- Some wells may not actively extract gas but may leak; clarify which wells are considered part of the gas collection system.
- Recommend requiring a design plan to explicitly identify non-gas-collection wells to avoid tying compliance solely to well purpose.

The SMAQMD strongly recommends CARB provide additional clarification, guidance, and implementation details on the following:

- Monitoring and reporting responsibilities for the new semiannual, continuous, and enhanced monitoring requirements.
- Definitions and applicability of gas collection system components, interior/exterior wells, and exemptions for treated fuel engines.
- Procedures and timelines for follow-up on alternative monitoring, unsafe-to-walk areas, remotely detected plumes, recurring exceedances, and SEM exceedances across multiple cracks.
- District access to electronic submissions and how to coordinate review responsibilities under MOUs.
- Funding and administrative feasibility: The proposed LMR will require significantly more staff time and administrative oversight than existing landfill programs. Because current permit fees cannot support these additional obligations, CARB should consider funding mechanisms or

guidance for districts—especially those opting out of MOUs—to ensure consistent statewide implementation. Sac Metro Air District's review indicates that the fiscal impact described in the ISOR substantially underestimates the actual workload and financial burden on districts. Without adequate funding or flexibility, implementation consistency and enforcement effectiveness will be difficult to achieve.

Sac Metro Air District appreciates CARB's continued efforts to reduce emissions from landfills and supports the intent of the proposed regulation. We hope CARB will consider the changes and clarifications outlined in this letter, particularly those related to implementation resources and funding, to ensure that the regulation can be effectively and consistently carried out across all districts.

Sincerely,

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