

Monterey Regional Waste Management District dba ReGen Monterey P.O. Box 1670 Marina, CA 93933

November 10, 2025

California Air Resources Board Attn: Clerk of the Board 1001 I Street Sacramento, CA 95814

Subject: Comments on Proposed Amendments to the Landfill Methane Regulation (Title 17, California Code of Regulations, Sections 95462–95476)

Dear Clerk of the Board,

ReGen appreciates the opportunity to comment on the California Air Resources Board's ("CARB") proposed amendments to the Landfill Methane Regulation (LMR). As an operator with more than four decades of experience in landfill gas collection and beneficial use, ReGen supports CARB's mission to reduce methane emissions and enhance monitoring transparency. We are actively seeking new ways to increase gas collection and prevent harmful greenhouse gases from entering the atmosphere.

However, our review of the proposed regulations reveals that certain provisions present technical, operational, and financial challenges that may unintentionally hinder safe and effective landfill gas management. We respectfully propose that the Board consider modifying the regulations with operator input to develop a phased implementation approach that achieves environmental objectives while maintaining operational feasibility.

The following summary outlines specific concerns identified in ReGen's review, with references to applicable LMR sections.

Summary of Findings



## 1. Prescriptive Standards Do Not Always Yield Optimal Results

Sections affected: §95464(c)(2), §95464(e)(3), §95469(f), §95469(g)

While ReGen recognizes the importance of uniform standards, certain situations would be better served by performance-based standards that allow operators to apply site-specific expertise rather than one-size-fits-all prescriptive requirements.

§95464(c)(2) – Well Decommissioning Restrictions

The proposed stipulations on when decommissioning a well is allowed limit operators' ability to phase wells in and out strategically. Operators are incentivized to keep productive wells in service to minimize surface emissions, even when some damage is identified. As long as a well produces gas without pulling ambient air, it is considered productive and should remain in service until a replacement can be installed.

Conversely, unrepairable damage that causes poor gas quality is the primary reason for decommissioning, often necessary to prevent oxygen intrusion and thermal events. It is not always feasible to install a replacement well prior to decommissioning. In some cases, continuing to operate a damaged well can cause thermal events or damage downstream destruction devices if the well continues operating after exhibiting poor quality or high temperatures. These site-specific scenarios require operator discretion rather than prescriptive mandates.

§95464(e)(3) – Limitations on Offline Wells

This section regulates the number of wells that can be offline simultaneously. In practice, operators sometimes must isolate portions of the gas collection system to install major collection components. This temporary isolation protects critical infrastructure, such as gas destruction devices, from damage when tying in new valves or headers. These shutdowns typically last only a few hours, contribute minimally to overall emissions, and often result in net benefits to overall gas extraction. The prescriptive limit of 5% of wells offline at any given time is overly restrictive and needs broader exceptions to allow operators to make necessary system improvements.

§95469(f) – Downwell Monitoring Requirements

This section mandates when downwell monitoring must be performed, but numerous well configurations make this infeasible, including remote monitored wellheads, horizontal collectors, and wells with damage that physically prevents monitoring equipment advancement.



Section §95469(f)(1)(A) implies that any damaged well inherently requires replacement. This is incorrect and removes necessary operator discretion. Wells can be partially obstructed, preventing liquid level monitor advancement, while still producing good gas composition and flow. In such scenarios, decommissioning and replacing a productive well makes no operational or environmental sense. A new well may be warranted as an addition, but the damaged well need not be immediately decommissioned if it continues extracting gas effectively.

§95469(f)(2) – Permanent Liquids Removal Pumps

This section requires operators to install permanent liquids removal pumps in wells based on available perforations, without considering individual well contributions. This approach mandates a costly, permanent "umbrella" solution that may not be warranted for many wells.

ReGen operates hundreds of acres of landfill gas collection devices of varying ages (some dating to the 1980s) and conditions. The proposed requirement would necessitate installing permanent infrastructure (compressed air for pneumatic pumps, electricity, and drain lines) to and from wells that may only recover old, deep, poor-quality gas with low flow rates. This diverts resources to wells providing minimal benefit rather than allowing strategic allocation based on performance.

§95469(g) – Extraction Control Strategy

This section effectively mandates a vacuum-controlled strategy for gas extraction over a flow-controlled strategy. Operators need flexibility to switch between both strategies as necessary to ensure gas destruction devices operate efficiently. Equipment controls or system maintenance may require using one extraction control method over another at different times. The proposed regulations do not accommodate this operational reality.

## 2. Proposed Timeframes Are Too Short and May Not Be Achievable

Sections affected: §95469(a)(1)(B), §95469(a)(2)(B), §95469(a)(4)(B), §95469(b)(2)(A), §95469(e)(1)(B)

ReGen understands that prompt response to observed exceedances is essential to limit surface emissions. However, given routine daily operating activities and necessary reliance on external consultant support, the accelerated timeframes proposed may not be feasible in practice.

§95469(a)(1)(B) and §95469(a)(2)(B) – 3-Day Response Requirement



These sections mandate response within 3 calendar days, a rapid timeframe that becomes particularly challenging when multiple exceedances are measured on the same day. Meeting this requirement will necessitate significant overtime for staff to retune or remediate areas with exceedances.

Under current regulations, re-testing is scheduled within 10 days (pending consultant availability), and responses are mobilized within that 10-day window in preparation for retesting. The proposed re-monitoring frequency, even after an area has been cleared, will likely force demand for monitoring crews earlier in each quarter so facilities can complete all remonitoring requirements within one quarter. Scheduling contracted field crews is already challenging under current regulations due to limited availability. The new regulations will exacerbate this shortage significantly.

§95469(a)(4)(B) – Monthly Monitoring Frequency

Increasing monitoring frequency to monthly intervals will further strain the already-limited availability of field crews in California. Landfills will likely need to hire and train their own staff to perform monitoring events rather than relying on specialized consultants who perform this work daily. This shift may reduce measurement quality, as landfill staff must integrate monitoring into their many other operational duties rather than focusing exclusively on this specialized task.

§95469(b)(2)(A) – 5-Day Plume Monitoring Requirement

This section requires operators to perform plume area monitoring within 5 days of receipt. Meeting this requirement will create competition among landfills for limited consultant monitoring services, potentially making timely compliance impossible. Visual inspection of the area with monitoring during the next scheduled SEM event would be more feasible given the other accelerated schedules proposed in this regulation. As noted previously, field technician and consultant monitoring teams are limited in California and may not be available on demand.

§95469(e)(1)(B) – Root Cause Analysis and System Expansion Timeline

This section requires root cause analysis for wells with positive pressure readings not corrected within 15 days, and suggests implementing system expansion within 60 days of the initial reading. This means operators would have only 45 days to drill new wells if a well cannot be fixed within the initial 15-day period.

This timeframe is too short to feasibly mobilize a drill rig to the landfill and begin well drilling. Landfill gas well drilling is a specialized activity, and drill rigs are not always available on short



notice. Additionally, the public board approval process required for government agencies like ReGen makes accomplishing this work in less than 2 months extremely difficult.

## 3. Monitoring and record keeping is significantly increased

Sections affected: §95469(d)(2)(A), §95469(d)(4), §95469(e)(2)(B), §95469(e)(7)(C), §95471(d)(1), §95471(k)(1)

§95469(d)(2)(A) – Rolling Average Flow Monitoring

This section requires monitoring additional data parameters, including a rolling 12-month flow average (sum of all components, updated every 15 minutes), a rolling 3-hour flow average (sum of all components, updated every 15 minutes), continuous comparison of the two, and a log tracking all instances when flow changes  $\pm 20\%$ .

Monitoring these two "moving targets" would require significant staff time or consultant time. ReGen previously paid a consultant \$5,000 per month solely to monitor the 3-hour rolling temperature for its dual-zone flare. The proposed requirements would substantially increase these costs.

§95469(e)(7)(C) – Well-Specific Rolling Average Comparisons

This section requires comparisons between rolling average values and current well readings, creating a similarly burdensome requirement. Each well (ReGen operates over 125 active wells) would require separate rolling data values for multiple parameters. Determining whether percentage thresholds are met and tracking each well's status would consume significant staff time and resources.

§95469(d)(4) – Continuous Generator Exhaust Monitoring

This section would require ReGen to continuously monitor oxygen and temperature of exhaust on its four LFG electrical generators. These costs may discourage continued energy recovery operations, potentially shifting facilities toward flaring, a less sustainable outcome inconsistent with California's renewable energy and emissions reduction goals.

§95469(e)(2)(B) – Weekly Wellhead Monitoring Requirement

Requiring weekly wellhead monitoring for at least one year if three or more positive pressure readings are observed would be extremely costly, overly strict, and would paradoxically discourage facilities from performing routine monitoring at their own discretion.



When ReGen observes a well with positive pressure, we respond immediately and often increase monitoring frequency until the pressure issue is resolved. For example, we may record three positive readings in one week while actively diagnosing an underlying issue. If such proactive monitoring events trigger an annual requirement for weekly readings, it would discourage the very increased monitoring that benefits emission control.

§95471(d)(1) – Drone and Rover-Mounted Instrument Requirements

This section suggests that drone-mounted and rover-mounted instruments are sufficiently widespread to make previously unmonitorable unsafe areas monitorable. This represents a mischaracterization of available technologies, as implementing these technologies is cost-prohibitive for most operators.

Contracting a sniffer drone service costs \$15,000 per quarter, while purchasing a laser drone device costs \$50,000 and requires specialized licenses and training to operate. These are not readily accessible tools for routine monitoring.

§95471(k)(1) – Cover Integrity Assessment Requirements

This section requires cover integrity assessment (thickness, grain size, and soil classification) without establishing a standard frequency for test pits, and imposes very strict intermediate cover requirements.

Performing this assessment retroactively on a 65+ year-old landfill without a frequency standard would be extremely costly. The intermediate cover requirements stated in §95471(k)(1)(C) would not be feasible for existing operations, as they would necessitate importing fill soil to meet the specifications, a significant and potentially prohibitive expense.

## Conclusion

ReGen respectfully requests that CARB consider these comments to ensure the amended LMR achieves its environmental objectives while remaining technically feasible, cost-effective, and operationally safe for California's landfill operators. ReGen fully supports emission reduction strategies and continues working actively toward that end.

The proposed changes to the LMR are increasingly restrictive and cover a wide range of operational topics. As an operator with decades of experience, ReGen requests that these regulations receive further consideration and, at minimum, that a phased implementation approach be adopted to transition the industry into these new requirements in a manageable way.



The burden to comply with prescriptive umbrella solutions, compressed timelines, and costly monitoring and data analytics requirements will ultimately be passed to the public who pays for waste disposal services. We welcome continued collaboration with CARB staff to refine implementation details and support California's leadership in methane mitigation while ensuring regulations remain achievable in practice.

Thank you for your consideration of these comments.

Sincerely,

David Ramirez

Director of Engineering and Compliance

ReGen Monterey

dramirez@regenmonterey.org