

Testimony in Support of SB 726 Katherine Blauvelt, Circular Economy Director Industrious Labs

May 1, 2025

Chair Lively, Vice-Chairs Gamba and Levy and members of the Committee:

Thank you for the opportunity to testify today in support of SB 726. My name is Katherine Blauvelt and I represent Industrious Labs, as their Circular Economy Director. Industrious Labs works to advance common-sense landfill emissions reduction policies that protect the health of communities and reduce harmful pollution. I have worked around the country to advise and advocate for more effective up-to-date state landfill regulations, including your neighboring states of Washington and California, as well as the state of Colorado and others.

Municipal solid waste landfills leak methane 365 days a year. And when methane escapes, other gases escape along with it such as hazardous air pollutants, PFAs (forever chemicals) and volatile organic compounds - the stakes are high to find and capture fugitive emissions from landfills.

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The reality today is that landfill operators rely on outdated, manual monitoring methods that frequently **miss large leaks**, leaving dangerous emissions unaddressed. Per state regulation, someone from a landfill, in reality often a contracted consultant, will walk the landfill several times a year with a handheld detection device 2 inches from ground, skipping the working face and any other areas they deem dangerous. These methods are by definition incomplete, vulnerable to human error, and pose safety threats, causing leaks to go undetected.

In September 2024 the U.S. EPA Enforcement division issued a nationwide alert noting "wide spread" compliance issues it had found during more than 100 inspections of landfills. The alert stated in part, "*EPA inspections revealed chronic compliance issues with landfill emissions monitoring, including technicians moving too quickly, improper exclusion of areas from monitoring…expired calibration gases, failure to fully inspect penetrations, and deviations from required monitoring procedures have led to inaccurate emissions data and missed pollution sources."¹*

The status quo is setting us all up to fail.

¹ U.S. EPA, 2024. Enforcement Alert: EPA Finds MSW Landfills are Violating Monitoring and Maintenance Requirements, <u>https://www.epa.gov/enforcement/enforcement-alert-epa-finds-msw-landfills-are-violating-monitoring-and-maintenance</u>.



But the good news is that **cost-effective**, **advanced methane monitoring technologies**—including drones, data from satellites, fixed sensors and more —are already widely available and in use. These tools provide **far more accurate and comprehensive data**.

Methane monitoring technology like drones and sensors is widely available. Here are just a few examples:

- Orange County Waste & Recycling Smart Landfill Program, deploys drones and robots to detect methane, watch them in action: <u>https://www.youtube.com/watch?v=A0jXDrvg1sQ</u>
- SCS Engineers demonstrates detection of methane on a landfill, by drone in this video: <u>https://www.youtube.com/watch?v=L_brOhGkF98</u>
- In North Carolina, the Sampson County Landfill is establishing an aerial pollution detection system, <u>employing drones to monitor</u> <u>methane emissions around the landfill's perimeter.</u>
- Here is a demonstration on how to map methane emissions via drone on a landfill - you can literally provide your team with an excel spreadsheet of the leak coordinates:

https://www.youtube.com/watch?v=GSZG8MQaq4k



- Here is a demonstration of the Sniffer Drone:
 <u>https://www.snifferrobotics.com/landfill-emission-studies</u>
- In 2023, in response to EPA findings of alleged violations of the Clean Air Act, a Kansas landfill agreed to deploy drone technology to monitor methane emissions and employ <u>Light Detection and Ranging</u> (LiDAR) to assess the landfill's cover integrity to prevent potential future releases of landfill gases:

https://www.epa.gov/newsreleases/epa-fines-lawrence-kansas-landfill -alleged-clean-air-act-violations

 After over 4,000 odor complaints from residents, the South Coast Air Quality Management District ordered Sunshine Canyon Landfill in California to <u>deploy advanced methods like drones and robotic</u> <u>vehicles</u> to identify problem areas and collect real-time data.
 Residents shouldn't have to endure years of suffering before the landfill operator deploys more effective monitoring technology. SB 726 can prevent this terrible game of whack-a-mole.

Fixing undetected methane leaks also helps landfills capture more gas which can then be used as a resource to provide energy to local homes and businesses. For example, ABB Measurement & Analytics, which

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provides a drone-based solution, worked with a landfill that was struggling to understand why its collected gas quality was so poor in certain landfill cells, and the technology they were using was not giving them the data they needed. A landfill operator is usually dealing with dozens of wellheads, perhaps miles of terrain - it's hard to find the problem! Utilizing drone surveys, ABB found very high levels of methane leaks which were the primary cause of the gas quality issues. They also dug up a wellhead and found that there was a separated pipe. It's this kind of effective reconnaissance from technology that allowed the landfill to be able to effectively mitigate the methane leak(s), helping to cost-effectively capture gas for use as a natural energy resource.

SB 726 helps ensure that landfills meet their **existing obligations to the public to adequately control methane emissions** by directing the state to undergo its rigorous rulemaking process to establish the use of **available, proven monitoring technologies** to track and fix methane leaks.

Why continue to operate on an outdated operating system like Windows 2000 when we have better, safer, more effective technology at our disposal?



I urge you to support SB 726 and ensure that Oregon fixes its broken landfill monitoring system. Thank you for your time.