TIME TO PLUG HE GAP: HONEYWELL EMISSIONS MANAGEMENT SOLUTION

Honeywell

Methane is a major contributor to climate change, with emissions from human action responsible for a quarter of today's global warming. According to the US Environmental Protection Agency, methane is 25 times more harmful than carbon dioxide at trapping heat in the atmosphere¹. And over the last two centuries, concentrations have more than doubled.

These harmful emissions are not just impacting the earth, but also costing businesses. It's estimated that natural gas operations leak 2.3% of total gas extracted every year³. In 2021 alone, that would have cost the industry \$19 billion². Environmental protection, plant efficiency and even worker safety make a compelling case to put a stop to this loss. Stringent government emissions standards and regulations mean businesses had little choice.

OUTDATED AND INADEQUATE

Traditional emissions monitoring is not up to this task. It provides neither the transparency the public and other stakeholders increasingly demand nor the accuracy and timeliness businesses need.

Leaks are typically monitored through periodic testing using wand-based sniffers. It's a labour-intensive process with readings at tens of thousands of valves, pumps and flanges. Some leaks may start shortly after manual testing is complete, and would persist for months until the next scheduled test.

That has serious consequences for regulatory compliance and operational efficiency:

 Audits are difficult to manage and trends hard to identify, so opportunities for reducing leaks are lost • Loss of hydrocarbon inventories erodes profits and can lead to fines and declining goodwill.

Crucially, the inability to measure actual emission levels (rather than estimate and assume these following periodic detection) means there is no emissions baseline. Businesses can't accurately demonstrate the year-on-year improvements in reducing emissions that they need to support their drive to meet sustainability goals and target carbon neutral commitments.



¹ https://www.epa.gov/gmi/importance-methane#:~:text=Methane%20is%20more%20than%20 25.due%20to%20human%2Drelated%20activities.

² Home OGM Partnership

³ The U.S. natural gas industry is leaking way more methane than previously thought | PBS NewsHour

ACROSS THE OPERATION: UPSTREAM, MIDSTREAM AND DOWNSTREAM

From O&G operations and pipelines to chemical plants and refineries, Honeywell Emissions Management Solution functionality helps enhance operational efficiency, reliability and safety.

UPSTREAM AND MIDSTREAM

Emissions monitoring and user-configurable alarms can immediately alert operators to critical product losses, even at remote and unmanned locations. Reducing product losses and emission-related penalties, Honeywell Emissions Management enables users to prioritize sites and can even trigger workflows for inspection and repair.

DOWNSTREAM

At refineries and chemicals plants, automated emissions monitoring rapidly locates the source of leaks to improve maintenance efficiency, accelerate repairs and reduce losses. Correlations with process events can also identify venting events to help drive optimization efforts

INTRODUCING THE HONEYWELL EMISSIONS MANAGEMENT SOLUTION

Honeywell's Emissions Management solution is a cost-effective, automated end-to-end solution to rapidly detect, measure and locate leaks. With plant-wide and enterprise-wide visualisation and reporting, it empowers operations to control and reduce greenhouse gas scope 1 emissions.

Combining its cost-effective wireless methane detectors for continuous, near real-time emissions monitoring with intuitive software it enables operators to identify, prioritize and address the costs of fugitive emissions. Benefits include:

- Covering more areas of the plant with wireless detectors that are easy to deploy and relocate
- Automating detection to prevent leaks from persisting and losses accumulating
- Reducing time spent on manual leak detection and repair measurements and periodic EPA audits
- Track losses to inform decisions on repair and maintenance schedules

- Capturing trends across operations to identify issues with equipment and designs contributing to leaks.
- Providing plant and enterprisewide accounting visualization and reporting and an integrated, holistic, near real-time view of scope 1 fugitive and process emissions.
- Hazardous area certified gas detectors allow identifying emissions state at equipment level.
- Saving OPEX on time spent manually surveying the plant for leaks



WHY HONEYWELL?

Honeywell brings a global scale and local support, along with decades of experience in automation and gas detection across industrial verticals. Today we're leaders in control, safety and cybersecurity. Major operators worldwide rely on Honeywell technology and expertise to keep operations running, keep people safe, protect the environment, stay compliant and optimize operations.

We help businesses achieve their targets and move beyond.

With technical support centres, product application and training specialists, field engineers and in-house engineering support, we employ the very best in the business. With over a century of industry experience, we deliver local business support on a corporate scale, wherever you need us.

For More Information

To learn more about how Honeywell Emissions Management Solution , visit <u>process.honeywell.com</u> or contact your Honeywell Account Manager.

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