

# TRENDS

## IN GAS DETECTION EQUIPMENT

by John V. Carvalho III

While gas detection systems have greatly improved since we started in 1995, the core part of a gas detection system is still essentially intact. There is one improvement that will be a game-changer for everyone from facilities managers to DPW workers, firefighters to wastewater management professionals: wireless detection.

Gas detection systems with a wireless connection can report directly back to a home office or command post miles away at the first sign of trouble. So, if you have an electrical worker or DPW worker on a job underground, they can wear a wireless detection unit the size of a cell phone and transmit conditions back to headquarters (complying with OSHA regulations for “Confined Space Entry”). This gives them the option of checking gas levels, in real-time, while on the job and the security of knowing someone at headquarters has access to the same readings and can alert them to danger.

The advances in gas detection equipment have not eliminated the need for periodic maintenance and 24/7 monitoring. Simply put, all gas detection systems should be tested every 90 days (following the manufacturer’s requirements as well as compliance with all local and federal agencies) to ensure they are still correctly calibrated and responding correctly and that all of the target gases are being detected. Those tests should be done with actual gases traceable to the National Institute of Standards and Testing (NIST) to ensure accuracy and protection from liability.

Unfortunately, many building owners and facility managers feel the

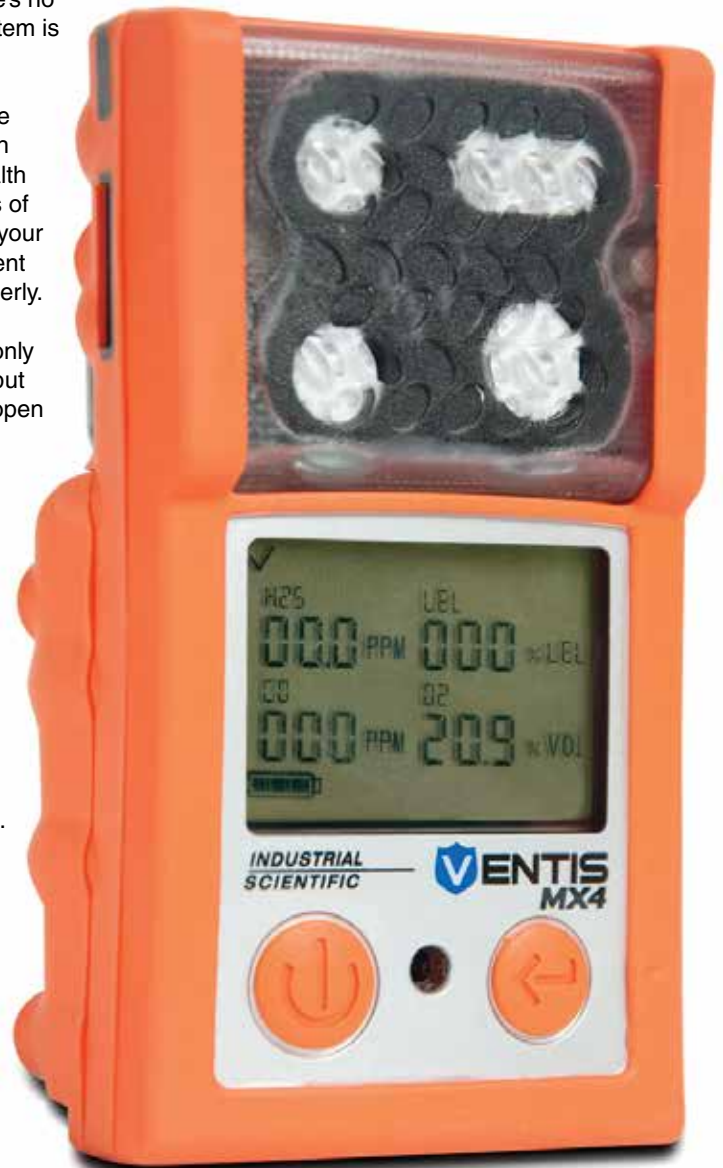
investment in a gas detection system to be sufficient and if the system doesn’t detect anything then nothing is wrong. Unfortunately, you can’t know a gas detection system is working unless it’s tested with the appropriate gases. Since most people do not intentionally have those gases on them in a safe form to test their system, there’s no way to know if the system is actually reading gas.

By not having a routine maintenance system in place, you put the health and lives of occupants of your building at risk if your gas detection equipment is not functioning properly. And when it comes to exposure to gases, it only takes one incident to put lives in jeopardy and open up your organization to tremendous liability. In fact, there have been fatalities in recent years at facilities where gas detection equipment failed.

The flip side of that is gas detection equipment that is oversensitive and produces false alarms. While most ambient gases are harmless, it is not unusual for a mis-calibrated or infrequent detection system to be set off by them. This can trigger a very costly chain of events—chaos in

the immediate vicinity, emergency personnel dispatched to the scene, evacuation of staff and customers, etc.

Bottom line, a false alarm alone can cost thousands of dollars in lost business, lost man hours and the price of emergency personnel dispersed to



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the site—not to mention the bad publicity and lost confidence of those involved. And with any false alarm, there is the possibility that you are taking emergency personnel away from a real emergency.

When you compare the cost of an annual maintenance plan—roughly \$1000—with the thousands of dollars associated with a wrongful death or liability lawsuit, the investment in a maintenance and monitoring program makes all the sense in the world. Yet it's a conservative estimate that perhaps only 10 percent of the buildings that have gas detection systems have an active maintenance program with testing conducted on a quarterly basis.

That's actually a number that has increased over the past few years. Much of that has to do with insurance. With an increased focus on risk management for commercial clients, insurance companies have not only mandated gas detection equipment installed but offered incentives for maintenance and monitoring contracts with those systems.

That might be the best trend in gas detection equipment: more building owners choosing caution over the bottom line, and that makes perfect sense. Installing a state-of-the-art gas detection system with regular maintenance and monitoring buys you peace of mind that you just can't put a price tag on.

**John V. Carvalho, III**

*is the president of Apollo Safety, Inc. Veteran-owned, Apollo Safety specializes in gas detection products and services for portable and stationary systems. For information, please visit [www.gasmonitorinstallation.com](http://www.gasmonitorinstallation.com) or call 800-813-5408.*

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