Using the Radius™ BZ1 for Emergency Response

Emergency responders, particularly those stationed at some of the world's most dangerous sites in the oil and gas, petrochemical, and steel/metal industries, are highly trained to combat the many types of hazards they may face on a daily basis. They depend on that training and on their equipment to keep them safe. Thanks to advancements in sensor and wireless technology, the Radius BZ1 Area Monitor can be the perfect addition to a first responder's gas monitoring program. Whether it is used to maintain a safe zone or to monitor a leak from a distance, the Radius BZ1 allows first responders to confidently know what is happening without approaching the hazard, all without the need for additional equipment or complex setup.

Accurate Detection of Multiple Hazards

The Radius BZ1 allows emergency workers to simultaneously monitor for up to seven hazards, including combustible, toxic, and volatile organic compound gases. Thanks to a 360-degree gas path and all-weather sensor deployment, the monitor accurately detects gases, regardless of environmental conditions, avoiding false readings and alarms. Even when Radius BZ1 instruments are deployed for an extended period of time without maintenance, accuracy can be ensured thanks to the redundant sensors in patented DualSense™ Technology.

Maintenance Made Easy

Even the most accurate equipment cannot be expected to keep people safe in emergencies if it is not properly maintained. Regular maintenance, including bump testing and calibration, is critical to a dependable gas detection program. The Radius BZ1 features the unique, patent-pending SafeCore™ Module, which can easily be removed and docked with a DSX™ Docking Station which will bump, calibrate, manage settings, synchronize data, and update software automatically.

Communication When and Where You Need it Most

When first responders arrive on the scene of a spill or a leak, they need to quickly establish a safe zone and then monitor that area to make sure it remains safe. The Radius BZ1 can be used to monitor the source of a known leak or to create a perimeter or fence line of area monitors to protect a safe zone. With the largest display in its class, bright and loud alarms, text-based menus, and customizable alarm action messages, it is easy to know what is happening near a Radius BZ1, even at a distance.

Additionally, with LENS™ Wireless, emergency responders can create out-of-the box wireless networks with Radius BZ1 units. LENS provides unique peer-to-peer communication that allows any LENS-enabled device deployed at a location to see the gas readings and alarm events from all other units on the network. With up to 300 m (1,000 ft) communication between units and up to 1,500 m (5,000 ft) total with wireless hopping, responders can always stay connected from a safe distance. Using LENS to communicate, rather than using a central controller model from other gas detection manufacturers, requires no additional equipment and provides access to information from any instrument in the field. This leads to faster and easier responses to emergencies.

Case Study

While it is always recommended to fully charge, zero, calibrate, and bump a Radius BZ1 upon receipt, an IH Technician at a Gulf Coast refinery used Radius monitors straight out of the box for an emergency response. A 300K tank sprung a leak, and was creating risk and impacting the work of over 50 people nearby. He opened the boxes of the LENS-enabled Radius BZ1 units that had just arrived from Industrial Scientific, turned them on, and put them to work immediately. He setup a wireless perimeter around the leaking tank with multiple units, deploying another monitor over 500 ft (150 m) away for remote notification for the possibly affected parties. As such, his workers were able to keep working throughout the week, thanks to the Radius BZ1's best-in-class runtime, while getting an advanced warning of potential changes of the emergency condition right out of the box.

To learn more about the Radius BZ1 Area Monitor and how it could help your site's emergency response program, visit Industrial Scientific at www.indsci.com/radius.

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