

[Home](#) › [Subject Matter Areas](#) › [Emergency Preparedness](#)

EMERGENCY PREPAREDNESS LEADERSHIP/MANAGEMENT INDUSTRY NEWS

Dr. Lori Moore-Merrell Joins N5 Sensors Strategic Advisory Board



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In today's ever-changing threat landscape, public safety agencies are under increasing pressure to respond quickly and decisively to a growing array of environmental hazards. From unprecedented wildfires to the invisible spread of airborne toxins and chemical threats, the first responder faces unique challenges that demand real-time data, rapid decision-making, and highly localized situational awareness. Recognizing this need, N5 Sensors is leading a quiet revolution in environmental and chemical hazard detection technology, and now, with the addition of former U.S. Fire Administrator Dr. Lori Moore-Merrell to its Strategic Advisory Board, that revolution is entering a new chapter.

Dr. Moore-Merrell, Editorial Board member for GTSC's *Homeland Security Today* and a long-standing force in advancing fire service and emergency response capabilities, brings decades of experience to the N5 team. Her work in data-driven operational innovation, federal policy alignment, and cross-sector collaboration has transformed how public safety agencies approach community risk, fire prevention, and disaster resilience.

The challenges first responders face today are more complex and time-sensitive than ever. Wildfires are spreading faster and occurring more frequently. Extreme weather is amplifying both natural and man-made hazards, creating overlapping risks that outpace traditional response models. Industrial incidents and transportation accidents can release toxic gases without warning. In each of these scenarios, what's often missing at the critical moment is timely, accurate, hyperlocal information about what responders are walking into.

That's where the next generation of sensor technology, like that pioneered by N5 Sensors, plays a vital role. Unlike conventional detectors, N5's smart sensors combine chemical detection, air quality monitoring, and real-time environmental analytics into compact, rugged devices deployable in the field. They can be integrated into public infrastructure or deployed in fire-prone and high-risk industrial zones to provide persistent environmental threat detection.

This approach not only supports proactive detection of threats—from smoke and gas leaks to toxic particulates and wildland fire indicators—but also enables a coordinated, data-informed response. These sensors effectively serve as a distributed warning system, flagging threats early and relaying that intelligence to emergency responders, commanders, and community leaders in seconds.



“In an era where environmental threats are evolving rapidly, the integration of advanced sensor technology is not just an innovation—it’s a lifeline”, says Dr. Moore-Merrell. “By empowering first responders with real-time, accurate data, we can enhance safety and ensure a more effective response to emergencies. Together, we are paving the way for a future where public safety is not only reactive but proactive and informed.”

The real power of these sensor systems lies in their ability to turn environmental data into operational decisions. For example, when a wildfire ignites, N5’s sensors can detect early signs of smoke and heat signatures before camera or satellite systems might register a plume. Working together, sensors systems, cameras and satellites increase community safety. Detection of chemical hazards associated with fires and clean-up can serve to protect the health of emergency responders. In a chemical spill scenario, N5’s devices can rapidly identify harmful compounds in the air, allowing appropriate emergency responder teams to adjust tactics on the fly, protect vulnerable populations, and isolate contaminated zones.

Beyond the fire or disaster site, these sensors also have broad utility for resilience planning. Municipal governments, transit authorities, and industrial facilities are increasingly looking for scalable tools to monitor air quality and detect anomalies in real-time. N5’s AI-enabled sensor system enables this with user-friendly dashboards and integration into emergency management systems, effectively turning raw data into actionable intelligence.

As a long-time advocate for applying data, science, and technology to frontline operations, Dr. Moore-Merrell has consistently emphasized the importance of data accessibility, inter-operability, helping protect the health of emergency responders and community-focused strategies. Her work in building the National Emergency Response Information System (NERIS) and driving the #FireServiceOneVoice movement underlines her belief in systems that unify information across agencies and jurisdictions. N5 shares these beliefs, teaming with partners and developing API’s to support information sharing with NERIS and other tools.

In this sense, her collaboration with N5 Sensors is more than an advisory role—it represents a strategic alignment toward a future where public safety is powered by connected intelligence. The shared vision is one where responders are equipped not only with the gear they need, but with the knowledge to act decisively in dynamic, high-risk environments.

While the sensor technology space is becoming increasingly crowded, N5 has quietly distinguished itself through its deep engagement with first responders and its commitment to real-world-tested solutions. The company’s technology has already been deployed in wildfire-prone zones, wildland urban areas, military bases, and civic properties. With Dr. Moore-Merrell’s guidance, N5 is poised to further scale its impact across jurisdictions and applications.

Ultimately, the stakes are too high for guesswork. As disasters become more frequent and severe, real-time environmental intelligence is no longer a luxury—it’s a necessity. With innovative tools like those developed by N5 Sensors, integrations with existing platforms and willingness of emergency responders to test new products and ideas, the path forward for public safety is becoming clearer: smarter, faster, and more resilient.