

# Responding to CBRNE Attacks: A Quick Primer

By JL Smither, Viewpoint

With terrorists becoming more sophisticated and the homegrown terrorist threat becoming more real, jurisdictions throughout the United States must prepare for possible attacks using chemical, biological, radiological, nuclear, or explosive (CBRNE) weapons or devices. Many jurisdictions and agencies have already held exercises to test their plans and responses to CBRNE attacks, and a number of them have shared – through *Lessons Learned Information Sharing* ([www.llis.gov](http://www.llis.gov)) – the lessons they have learned, or are learning, with other agencies and organizations throughout the country.

In 2006, the U.S. Department of Homeland Security's Domestic Nuclear Detection Office sponsored what was called the Southeast Transportation Corridor Pilot Technology Demonstration exercise. The participants included representatives from a number of federal departments and several southeastern states. The objective of the exercise was to test screening technology and procedures by using both fixed and portable radiation detection equipment to screen commercial trucks and cargo containers at port security facilities and vehicle weigh stations.

The participants were expected to proceed, after discovering what seemed to be radiological material, as they would during a real-world incident. However, after detecting a potentially dangerous radiological source in a commercial truck, emergency officials did *not* close the weigh station; nor did they clear the surrounding parking lot. In fact, traffic was allowed to continue through the station while the potentially harmful truck was parked in the nearby parking lot, where many other vehicles also had stopped after being weighed and inspected.

The lack of proper action by emergency officials significantly increased the risk of exposure and contamination throughout a much larger area than just the weigh station itself. The lesson here, of course, was that, after detecting what seems to be a contamination source, law enforcement officials and other emergency responders should immediately secure the surrounding area.

Moreover, after closing down the area, emergency officials should then clearly label and control the contaminated zones. During a functional exercise in Oregon's Hood River County, agencies practiced and tested their response to the detonation of a radiological IED (improvised explosive device). The simulated blast created a large and potentially contaminated debris field. Not only were some residents "contaminated" by the initial blast, but others also were contaminated when they rushed to help.

During the exercise response activities, the safety officer did not clearly demarcate the boundaries of the control zone. Without realizing it, some responders and victims walked freely, and repeatedly,

from contaminated areas into "cold zones" and back again. These actions put the uncontaminated individuals, equipment, and areas at risk of cross-contamination. Here the lesson is that safety officers should demarcate contaminated areas, clearly, with colored cones, police tape, and/or other visible markers so that responders and victims can avoid cross-contamination.

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Learning from those exercises, the Metropolitan Washington, D.C., Council of Governments also urges caution when approaching the blast site of any CBRNE device. In a plan designed to ensure that all emergency responders within the National Capitol Region (NCR) follow the same basic operational guidelines, the Council has recommended that the first responders to the site of a potential CBRNE incident stop and evaluate the situation from 300 feet *outside* the debris field. That distance should be enough to minimize the risk of responders being unnecessarily exposed to contamination and/or accidentally detonating a secondary device hidden among the initial blast debris. By evaluating the situation from a safe distance, responders on foot or in vehicles will be unlikely to cross-contaminate cold zones inadvertently.

The Council's plan also instructs emergency officials to stop rescue vehicles that are outside the blast perimeter. The staging officer on-site should arrange parking for such vehicles in a manner that allows for rapid egress. For that reason, emergency vehicles should be instructed to back into the area without blocking each others' paths. Adherence to that procedure not only allows victims to be quickly and easily removed from the scene, but also helps vehicles avoid secondary and sudden dangers, such as another explosion or a building collapse.

Today, jurisdictions at all levels of government must prepare to meet the threat posed by a possible CBRNE attack. The first moments immediately following such an attack are critical to the success of the response. Emergency officials will in all probability have to rescue, treat, and decontaminate victims while at the same time containing the contamination and avoiding actions that cause additional harm. As jurisdictions and agencies continue to train on these and other responses, they will develop even more lessons to share.

For additional information on CBRNE responses and other lessons learned, visit *Lessons Learned Information Sharing* at [www.llis.gov](http://www.llis.gov).

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