

**2013 Oak Ridge Emergency Management Forum  
Closing General Session**

*Challenges in Emergency Management Partnerships – The Next 10 Years*

David Freshwater  
Supervisor, Implementation Support Branch  
Office of Emergency Operations (NA-40)  
Department of Energy/National Nuclear Security Administration

Good afternoon. Thank you for that introduction. This is an interesting experience for me. This is the first time that I have attended the Oak Ridge Emergency Management Forum. It is also the first time that I've been asked to provide remarks at the close of a conference. Fortunately, I have somewhat related experience. I have been the speaker in conferences right before lunch. As a result, I recognize that staying within the allotted time is important.

It is also important that I state, up front, that the content and conclusions expressed in this presentation are solely my opinions and do not necessarily reflect the views of the Office of Emergency Operations, the National Nuclear Security Administration or the Department of Energy.

The topic for this presentation was quite daunting – predict the challenges of the next 10 years. Eventually, I thought back to the last 10 years, what challenges were we in the emergency management community addressing 10 years ago and in the years leading up to today.

- In 2003, the Emergency Management community was revising plans to deal with 9/11-type attacks. A large portion of the effort focused on strengthening security and preventing attacks. There were Federal resources provided through FEMA and its new parent, the Department of Homeland Security.
- In 2005, Hurricane Katrina arrived and focused the Emergency Management community in a different direction.
- In 2007, we had the active shooter incident at Virginia Tech.
- In 2011, the Tōhoku Earthquake & Tsunami affected millions of people in Japan. It was estimated that 1.4 million homes were without water and 1.9 million without power. Tens of thousands of people were missing. Much attention, including within DOE, has been given to the damage done to the reactors and spent fuel pools at the Fukushima Daiichi Nuclear Power Station.

- While wildland fires occur each year, in 2011, the Las Conchas fire impacted operations at Los Alamos National Laboratory and led to a partial activation at the DOE Headquarters Emergency Operations Center.
- 2012 brought waves of tornados to this area in the spring and Hurricane Sandy to the Northeast in the fall.
- In the past few weeks, torrential rains have caused flooding in the west, including at Los Alamos. And we have had another active shooter incident, a shooting in a park, and an attack in a mall.

Looking at this list of events, and others that I did not include, I realized that there were some common threads and that I could make some predictions about the next 10 years.

First, we ignore Mother Nature at our peril. Deciding that natural phenomena will not have an impact because building codes will ensure that infrastructure will remain intact or our safety systems will function is a trap. When the building collapses or safety systems fail, everyone will turn to emergency management. It remains the last line of defense, when all other systems fail.

We all remember Hurricane Katrina and the weaknesses that it exposed. But, did we ignore the lessons that came before? 4 hurricanes had hit Florida the year before and Katrina was just one of 7 major storms in the 2005 season. Hurricane Sandy showed that it is not just the southern coast that is vulnerable. While I might venture to predict that a hurricane or a tsunami is unlikely to affect Oak Ridge, you know that tornados and other severe weather can affect this area.

Further, the event does not have to be the same to learn valuable lessons from the experiences of others in responding to their natural phenomena events. When you find yourself in a situation where power and communications are down and there are multiple demands on scarce resources, does it really matter if a hurricane, tsunami, or earthquake was the initiating event? Rather than adopting an attitude of “we are different, so this couldn’t happen,” an NIH – Not Invented Here” attitude, we would be better off looking for the similarities between the event and our situation and drawing appropriate lessons.

Second, it is nearly impossible to plan, in detail, for everything. Mother Nature has so many different ways to affect us. One of my favorite corollaries to Murphy’s Law is, “You can’t make anything foolproof because fools are so ingenious.” It sounds like the beginning of a bad joke, and to some extent it is. We use fancier language, but many exercise and drill scenarios boil down to "Murphy, his cousin Bubba, and

a forklift...." Yet, there is a reason for those scenarios. Anything that can fail, will fail, and in very inconvenient ways.

This is not meant to discount the need for planning, just that we cannot develop detailed plans for every conceivable scenario. We need plans that address a spectrum of events, laying out the essential steps that can be performed automatically to protect workers, responders, and the public and position the organization to mitigate the event once we begin to gather reliable information about what is actually happening. Our spectrum must be robust enough to serve as the basis for an ad hoc response for a situation that does not match those in our plans.

Recent Department of Energy activities provide a level of confidence that the existing Departmental requirements, outlined in DOE Order 151.1C, identify a robust spectrum of events as the foundation of our emergency management programs.

A year ago, the Department of Energy was wrapping up an effort to examine lessons learned from the experiences at the Fukushima Daiichi Nuclear Power Station within the framework of the safety and emergency management programs at a small set of the Department's high hazard nuclear facilities. One of those facilities was the High Flux Isotope Reactor here at the Oak Ridge National Laboratory.

On the safety side, the team examined Beyond Design Basis Events, events more severe than the events that formed the basis of the design for DOE's nuclear facilities, such as extremely unlikely earthquakes. The team then evaluated approaches to examine the impacts of these Beyond Design Basis Events on Critical Safety Functions.

With that information, the emergency management members of the team separately examined the procedures used to develop the Hazards Surveys and Emergency Planning Hazards Assessments, along with current Hazards Survey and EPHA documents. We found that the Beyond Design Basis Event scenarios were already incorporated in the Hazards Surveys and EPHAs and concluded that our existing process is sound. The Department's Office of Enforcement and Oversight has conducted other reviews across the DOE Complex, including a review of the program here at Y-12, and reached similar conclusions.

Even with a sound framework that identifies a spectrum of events as the basis for our programs, there are areas where we can improve. Any program, no matter how well designed or how long established,

can be improved. A questioning attitude - what is the worst thing that can happen here? What do we do if that occurs? – is essential to fostering continuous improvement.

One of the things that we found in light of the Fukushima event is that our emergency management programs had tended to focus on incidents associated with a single facility. While the incident might result in potential consequences across the DOE site or into the offsite areas, it was rare to see exercise scenarios with consequences emanating from multiple facilities. Even if there were multiple facilities on the site involved in the exercise, scenarios involving severe events were rarer.

Rather than focus on Beyond Design Basis Events, we found that DOE emergency management programs needed to consider “severe events.” “Severe events” is a broader term than Beyond Design Basis events. Severe Events are events that are expected to cause major disruptions/damage to site-wide and offsite infrastructure, as well as, increased risk to onsite personnel, and the general public offsite, possibly resulting in injuries and fatalities. These events could potentially isolate a facility or site, or the surrounding community, from its normal mutual aid response and infrastructure support.

“Good neighbor” policies or Mutual Aid Agreements have been a component of the emergency management community for years. When the event requires more resources than the DOE site has available or specialized resources that are not present, unaffected, offsite jurisdictions support the response. And vice versa.

With severe events, however, all jurisdictions within the normal mutual aid area may be impacted. There can easily be more events than there are resources available across all jurisdictions. A severe event needs an established Unified Command, under National Incident Management System (NIMS) principles, to allow multiple jurisdictions to set common objectives during response. Unified Command provides the structure to accomplish the National Response Priorities as established by regulation (40 CFR 300.317): (1) protect the safety of human life, (2) stabilize the situation to prevent it from worsening, and (3) minimize adverse impacts to the environment. As resources flow from regional and national levels, Unified Command can quickly assign the arriving resource to the highest priority situation.

Success in a Unified Command environment will reflect the partnerships that have already been established between the participating organizations. It takes more than just participation in exercises to establish partnerships. Each organization needs to have an understanding of the goals of the other

organizations and the procedures used to achieve those goals. There has to be outreach by each of the organizations.

During yesterday's FEMA Think Tank, Dr. Susan Speraw, an Associate Professor from the University of Tennessee College of Nursing was speaking of innovating and a program that brought students from the diverse disciplines together to work on problems in Appalachia. She said, not a direct quote, 'If people do not meet, learn to speak the same language, and train together, how can we expect them to respond together?' Just because we are all from the emergency management field does not mean that we have the same definition for terms. Within DOE, I am almost convinced that if we define a term in a Directive that there is someone at the implementation levels of the Department that purposely uses the term in a different way and calls their process something else.

We counter the problems of language and establish frameworks to respond efficiently by creating opportunities to work together in partnerships. One of the early lessons after Fukushima, that came from responses that Headquarters gathered from the contractors and site offices was that we needed to coordinate plans with the offsite communities and then test those plans through exercises, whether traditional field exercises or table top exercises.

One of the questions that we asked during the visit to HFIR last year was whether plans for early release in the aftermath of a severe event coordinated, were checks done with the offsite agencies to ensure that the severe event had not closed the normal commuting routes? Not that the normal commuting routes flow freely at all times. But take the normal somewhat dispersed rush hour and compress it, while throwing in problems with a bridge or overpass. I understand that there is an ongoing effort to coordinate early release plans with the city, counties and state – and I commend that.

The Oak Ridge Emergency Management Forum is a brilliant idea for fostering the partnership among the emergency management organizations in this area. I know that other organizations across the DOE complex participate in their Local Emergency Planning Committee and in state-wide organizations. Yet, I cannot explain how, until recently, I was unaware of the efforts of this group for more than a decade.

I am convinced that a major challenge that we face over the next decade is working in partnership with other organizations when those high-consequence, low-probability events occur. Turf battles at the Incident Command Post detract from accomplishing the priorities of protecting the safety of people, stabilizing the situation, and minimizing the adverse impact. Oak Ridge clearly has a head start in establishing the partnerships that will ensure that the goals of all participating organizations are

accommodated during an emergency. Other parts of the Department can benefit from your lessons and example.

I hope, though, that the next 10 years do not find us depending on partners to respond to events closer to the more common place end of the spectrum of emergencies. We all know that budgets are under pressure and there does not seem to be relief on the horizon. Fortunately, the partnerships and common experiences that we develop to respond to severe events will provide us with an option.

In summary, I believe that partnerships will be essential to our success over the next 10 years. We will be called on to shift focus between various scenarios, from terrorism to technological hazards (radiological, chemical) to biological and pandemic concerns. While we must maintain our core competencies, responding to the hazards that exist at our (DOE) facilities and in your communities, we ignore the potential for a severe event caused by natural phenomena at our peril. Mother Nature will surprise you and extract a payback. Success in responding to a severe event will depend on how well all the affected organizations come together and work as a team to accomplish the greatest good for the greatest number. Partnership efforts, from planning to exercise to ensure readiness, will be essential to success in response over the next decade.

In closing, I congratulate you on your foresight in establishing your own partnerships and this Emergency Management Forum to promote an exchange of information and improve your ability to work together in an emergency response. I predict that, over the next ten years, you will find other areas in the DOE complex learning from your experience and building on your success.

Thank you.