# NRC NEWS

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**"Perspectives on Emergency Preparedness"**

**Keynote Address of NRC Commissioner**
**William C. Ostendorff**

**NEI Emergency Preparedness Forum**
**Clearwater Beach, Florida**

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## Introduction

Good morning. I am very pleased to be here today. I would like to thank the Nuclear Energy Institute for hosting this event and providing this opportunity to talk to you all. I think it is very important that emergency preparedness professionals get together periodically to communicate and share lessons learned in this vital component of our national nuclear safety infrastructure.

What I would like to do this morning is to share some of my background and experience, provide some perspectives on emergency preparedness, and listen and respond to some of your questions and comments.

## Background and Experience

I've been on the job now for just over two months. In that time, I have learned a tremendous amount about the nation's civilian nuclear activities. Of course, there is still much more for me to learn. Interacting with the nuclear community at events such as this forum is very much a part of my education process.

Prior to my joining the NRC, I have held senior leadership positions at the National Nuclear Security Administration, the House Armed Services Committee and in the United States Navy nuclear submarine program. Let me assure you that I am no stranger to the world of emergency preparedness and response. Though a relative newcomer to the world of the

commercial nuclear industry, I have had the opportunity to observe key events with some relevant background from my submarine service as well as my time as Principal Deputy Administrator at NNSA. Let me digress to the past for a moment to share a few personal anecdotes I believe relevant to the topic of emergency preparedness and this forum.

I recall being a LT (junior grade) serving as Reactor Controls Assistant on USS GEORGE BANCROFT (SSBN 643) in 1978 and being told that I was responsible for conducting the upcoming ship's annual reactor accident drill. That experience highlighted the importance of training in areas such as taking immediate operator actions to place the reactor plant in a safe condition, having the Engineering Laboratory Technicians conduct comprehensive radiation surveys, and making accurate reporting externally via Navy communications channels. A year later – in 1979 – while again on an SSBN deterrent patrol, I recall seeing the Radio Room teletype report of a nuclear incident at Three Mile Island outside Harrisburg, PA.

While completing my qualifications to serve as a Nuclear Engineer under Admiral Rickover's program in 1980, I spent countless hours learning how to draw the reactor plant systems with a special emphasis on the interfaces between the Coolant Charging, Discharge and Valve Operating Systems to be prepared for casualty response actions. Perhaps some in today's audience have had this opportunity to excel!

In 1986, while serving as Engineer Officer on USS JOHN MARSHALL (SSN 611) – a former missile submarine converted to a special warfare platform for SEAL Operations – I recall taking portable samples topside at the Norfolk Naval Base to check for airborne particulate activity in the aftermath of the Chernobyl incident in the Ukraine. For a few months, we routinely got detectable alpha activity with our AN/PDR-45 radiac, which was attributed to this severe accident thousands of miles away.

Over 20 years later, while serving as Principal Deputy Administrator at NNSA from 2007 to 2009, I continued to be directly engaged in the emergency planning arena. As NNSA's Central Technical Authority, I was engaged in technical issues associated with Airborne Release Fraction of special nuclear material during safety analyses of hypothetical fire scenarios at NNSA facilities. I also had the opportunity to be engaged in coordinated national exercises with the Departments of Defense, Homeland Security, FBI, FEMA, and DTRA on nuclear weapons incident scenarios. And, as a follow-up to the 1986 Chernobyl reference earlier, while visiting one of NNSA's megaports facilities in June 2008 in the port of Antwerp, Belgium, I distinctly recall the director of the Port Authority telling me of radiation detected in a cargo container earlier that year – now this was 2008 – in a shipment of blueberries that originated in the Ukraine.

Thus, while new to the commercial nuclear industry, the aggregate effect of my prior experiences is twofold. First, I fully appreciate the importance of effective and thorough emergency planning. And, second, I have a deep appreciation for the role that you in the audience – the nuclear industry emergency planning leadership – play in keeping us safe and vigilant.

**Perspectives on the Importance of Emergency Preparedness**

Let me shift gears now and share some perspectives on the importance of emergency preparedness. I am going to frame my remarks from the standpoint of three distinct groups: First, NRC licensees; Second, Federal, state, and local agencies; and third, members of the public

*NRC license holders*

The first group is NRC license holders and nuclear power plant operators. I want to start off by saying that in my first two months, I had the opportunity to visit a variety of nuclear facilities in all four NRC regions. I have visited both units at Watts Bar, Salem and Hope Creek, Braidwood, Louisiana Enrichment Services, Waste Control Services, a blood irradiator facility in Rhode Island, and a commercial food irradiator in New Jersey. I will visit Crystal River this afternoon. In addition to seeing emergency response facilities at the commercial nuclear power plants, I have been to the incident response centers in each of the NRC's four regions and at Headquarters. What I saw during these visits were facilities that were professionally staffed, operated, and maintained.

I think it is widely understood that licensees have the primary responsibility for the protection of public health and safety. That is a 24/7 responsibility, whether it be day-to-day operations or during emergency response. Effective emergency preparedness is a significant and necessary investment of time and resources. It is an investment that does not directly result in megawatts on the grid. Some might even say that the investment is for a major emergency that may never occur. However, we know that equipment breaks and people make mistakes. In the very unlikely case that an off normal event does happen and a serious problem occurs, I think we would all agree that the investment in effective emergency preparedness beforehand would pay huge dividends.

Now I don't want to suggest that the commercial nuclear industry does not take emergency preparedness seriously. Rather, my intent here is to reinforce the vital importance of effective emergency preparedness. I think that many of the events and disasters outside of the nuclear industry underscore this point. Consider events to date in 2010: the BP oil spill disaster in the Gulf of Mexico, gas refinery explosions and the recent coal mine disasters in West Virginia and China. Effective emergency preparedness is critical in minimizing the impacts of major disasters. Without it, our society risks the loss of life, and adverse environmental and economic impacts.

I read a news article recently that compared the challenges of the Gulf oil spill to the oil and gas industry to be comparable to that of the nuclear accident at the Three Mile Island nuclear power plant. The article suggested that Americans have far less fear of oil and its products, which they use every day, than of nuclear power. The article went on to say that the fear of nuclear power persists even though the industry operates with multiple safety measures that have helped to ensure better safety and environmental performance and established a superb safety record. I think that's an accurate assessment. My point here is that nuclear power plants carry a special concern with the public. We all need to keep that in mind.

*Federal, state and local agencies*

The second group I want to address is the Federal, state and local government agencies that have responsibilities for emergency preparedness. This includes the NRC and FEMA. Good communication and informed coordination among these organizations are key factors in ensuring timely and effective response to emergencies. Again, some of the major catastrophes in recent years have shown that slow response, poor coordination and communication can significantly undermine the public's confidence in this area. If we are indeed in an era that some would label a nuclear renaissance, the nation cannot afford to let its guard down in nuclear emergency preparedness. We need to continually learn and improve from experience inside and outside of the nuclear sector.

From the perspective of the NRC, I think that the application of the agency's principles of good regulation – independence, openness, efficiency, clarity, and reliability – is especially relevant for our actions in emergency preparedness. In preparing for this occasion, I was briefed by our staff on several aspects of the NRC's activities in emergency preparedness. We talked about the major rulemaking that is underway. I understand that this is viewed by the industry as the most comprehensive rulemaking in emergency preparedness since the accident at Three Mile Island. It was clear to me that many of the issues in this rulemaking – such as evacuation time estimates and response to hostile actions – are indeed challenging. It is evident that the NRC staff and our stakeholders have invested considerable effort in this rulemaking. I am looking forward to reviewing the final rule when it is provided to the Commission. I encourage all of you to continue to be active participants in the NRC's rulemaking process.

As an aside, I have received feedback regarding the consideration of the aggregate or cumulative effects of NRC regulatory actions. I find this feedback helpful to me as a regulator.

*Members of the public*

The third group that I want to talk about is the public. In a general sense, emergency preparedness is the public face of nuclear energy. I think the local communities surrounding nuclear facilities are the primary benefactors of our efforts in emergency preparedness. The private and government sectors have a significant obligation to communicate to the public during an emergency. This communication is most effective when it has been preceded by an on-going licensee program of public education and community outreach.

I think one thing that sets the nuclear industry aside from others such as the petroleum and chemical industries is our communication with the public. Now I'm not suggesting that we are perfect. There is always room to improve our communication with the public. But my general feeling is that the NRC and the regulated community do a pretty good job in communicating with the public. I would even say that other hazardous industries could learn something from how we do business.

Looking forward in this context, I know that we have initiatives underway in risk communication. I think this is an important area for us to consider as new reactor designs are becoming inherently safer and as our consequence analysis capabilities improve. I think the NRC and the industry have important roles in educating the public on what we learn.

**Conclusion**

I will now close. I have talked long enough. I would like to open the discussion to hear from you. But before doing so, I want to say thank you all for your efforts in working together towards the improvement of emergency preparedness and for coming together for this Emergency Preparedness Forum. What you do is indispensable for our nation's nuclear safety and security.