



NRC NEWS

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“Perspective on Preparedness for Radiological Terrorism”

Prepared Remarks for

**The Honorable Gregory B. Jaczko
Commissioner**

U.S. Nuclear Regulatory Commission

at the

**52nd Annual Meeting of the Health Physics Society
Portland, Oregon**

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I admire the work that you do and I am glad to have the opportunity to open your session entitled “Community Preparedness for Radiological Terrorism.” You will be engaging in technical discussions about radioactive dispersal devices, community response plans, and first responders throughout today’s session. The work health physicists perform, whether for a radioactive materials licensee, a nuclear power plant, a university, or a government agency, is designed to ensure protection from the health affects of radioactive materials. Health Physicists have unique training and expertise.

Before I get much further, I want to discuss something that I believe is vital to good public policy. To best accomplish its mission of protecting public health and safety and the environment, the Nuclear Regulatory Commission (NRC) should be as open with information as possible and transparent in explaining the processes the Commission uses to make decisions. To be successful we need two things: policy based on sound science, regulatory, and technical decisions, AND public confidence in those decisions. We only get that public confidence when we engage a diverse group of stakeholders, to hear their concerns and ideas, and to make them active participants in our decision making processes.

No where is this more important than in the emergency preparedness arena. This is one of the few issues in which the NRC interacts not only with licensees, but directly with the public. Emergency preparedness is an emotional issue which makes communicating accurate scientific information even more important and challenging. The public must also follow recommendations we make for those protective actions to be effective. Looking at preparedness planning through the public's eyes gives us a much fuller appreciation for what we need to accomplish.

The Nuclear Regulatory Commission has an advantage in that our agency and our licensees have been working with the local communities around nuclear power plants for decades. We have a good understanding of the risks these facilities pose, the time frames in which an accident is likely to occur, and the investments that have been made to develop preparedness plans for the ten-mile emergency planning zones and the fifty-mile ingestion pathways.

That is not to say the agency is not continuing to evolve. The Commission has proposed modifying its regulatory requirements for radiological emergency preparedness in several different areas. The first involves additional requirements for our licensees to provide better information more quickly. Based on advances in technology and emergency management over the last quarter century, they deal with such issues as requiring licensees to have a backup capability to notify government and the public of an incident at a plant, and performing periodic reviews and updates of evacuation time estimates to better assist in making protective action recommendations. We have also funded evacuation and protective action studies¹ at Sandia National Laboratory over the past few years. The preliminary results of these studies show that in certain emergencies resulting in releases of radiological materials – such as short duration or “puff” releases and/or in communities with longer evacuation times, it may be better for people to shelter in place rather than attempt to evacuate. There is a widespread perception that radiological emergency preparedness is equivalent to evacuation. So making a dramatic change such as this would require good communication and stakeholder confidence.

The second area involves the inclusion of security-based drills and exercises. We have a sophisticated exercise program at nuclear power plants but are planning to add more realism into these training opportunities. These exercises may include a spectrum of simulated releases to better familiarize responders with different timing, duration, and severity of events.

Finally, we are exploring a new way of regulating emergency preparedness – a performance based approach which focuses on results as the primary basis for regulatory decision-making. This would allow the agency to more effectively define what “adequate public health and safety” means in an emergency preparedness context. It would involve a broad stakeholder discussion about what the “adequate protection” standard should be, the protection that emergency preparedness plans and procedures should result in, and new more objective and measurable regulations.

Now, none of that is easy or short term, but the NRC has talented and dedicated career staff who constantly work to implement and improve our programs. For the nuclear power plants we regulate, we have sixty-five distinct sites to worry about. Concerns about the potential of radiological terrorism have no defined boundaries and could affect areas that do not have as

established of an emergency preparedness infrastructure. This is the challenge and the opportunity that the government faces.

Our role as radiation experts and regulators is to help communicate with the public and educate them about the risks of the materials we know. This benefits the work of emergency responders during planning for the initial and intermediate phases of an incident, but it is also invaluable to providing the “sound science” portion of decision-making about long-term recovery efforts.

The NRC has been involved in revising the Environmental Protection Agency’s 1992 Protective Actions Guidelines, and the Department of Homeland Security’s addition of a section on radiological dispersal devices and improvised nuclear devices. These recommendations for when communities should take protective actions are vital and the most important aspect of them will involve moving back to communities that may be affected. The interagency community has appropriately not yet defined a standard for long term recovery, instead relying on the principle of “optimization” for determining the appropriate radiation threshold after a radiological event. I agree that one size might not fit all and that there are public benefits to being able to return to communities as quickly as possible. But optimization is rather loosely defined and it is important to remember that the public would look to you for help to make decisions about whether and when it is safe for them to go home.

This type of situation would pose a challenge similar to the anthrax attacks that occurred at the U.S. Capitol when I worked there in 2001. There was no play book for the challenging set of circumstances that confronted decision makers following the discovery of anthrax spores in a Senate office mailroom. There were lengthy debates about how clean was “clean,” and officials were required to make difficult judgments about how to remediate and when to reopen Senate office buildings. Similarly, your work is and would be crucial if a radiological incident were to occur in the U.S. The public would need your expertise and you would need the confidence of the public to succeed.

In conclusion, I want to thank you for the valuable work you do to provide the sound science that serves as a foundation for policy making and public protection. I appreciate the opportunity to be here and I look forward to hearing the results of today’s session.

I would welcome any questions or comments you may have.