

**The Next Evolution in Radiological Emergency Preparedness:  
Further Strengthening the Federal Partnership with State and Local Emergency Managers**

**Prepared Remarks for**

**The Honorable Gregory B. Jaczko  
Commissioner  
U.S. Nuclear Regulatory Commission**

**at the**

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As you heard in my introduction, I have done work in physics which involved analyzing very small systems. The emergency preparedness work you do is about large and complex systems involving many different agencies and levels of government. All disasters are local and therefore you have the primary responsibility for deciding how to plan for and address them. The federal government should help you prepare and respond when the event is of such magnitude that state and local capabilities are overwhelmed. I am glad to be here today and I intend to keep my remarks relatively short because I would like to leave time for a more informal question and answer session.

I have made it a focus on the Commission to work to improve public confidence in the agency. I believe that if we act based on sound technical, scientific, and policy considerations, but do not have public confidence, even the correct decisions can be difficult to implement. The reason I have focused so much on emergency preparedness is because I believe it is one of the areas where that can happen. You and those who have come before you have worked hard to get the resources and technical guidance you need from licensees and the federal government and you have used that to create a very good system of radiological emergency preparedness that has served as the basis for national all-hazards preparedness efforts.

That does not mean that the federal government is doing everything it can to help and it does not mean we all can not evolve and continue to improve. I use as my springboard for today's talk one small section in the Department of Homeland Security's (DHS) Federal Emergency Management Agency (FEMA) regulations, 44 CFR Part 351.21, which describes the Nuclear Regulatory Commission's (NRC) role of evaluating the emergency plans. Section (g) reads as follows:

“Participate with FEMA in assisting State and Local governments in developing their radiological emergency plans, evaluating exercises to test plans, and evaluating the plans and preparedness.”

The NRC clearly has the primary responsibility to ensure a licensee's onsite plans provide reasonable assurance that appropriate protective measures can be taken and for reviewing FEMA's offsite findings to make an overall determination of adequate protection for your communities. The regulation I just quoted makes it clear that the NRC has an obligation to stand with you to help you develop the plans that you submit to FEMA.

When I spoke to you last year, I indicated I had visited many of the nuclear power plants the Commission licenses and regulates and met with state and local officials, and public interest groups. Since last year, I have participated in licensee and regional emergency preparedness forums. I have also met with DHS officials and spent a fair amount of time with the NRC's excellent radiological emergency preparedness (REP) staff.

I have concluded that while state and local emergency managers know what they need to have in place to protect their people, we have not done a thorough enough job at the federal level of adapting to technology and changes in emergency management to explain exactly what it means for a radiological emergency preparedness plan to 'work.' Without that, the NRC can not hold its licensees accountable to the extent necessary, and it can not communicate with the public as effectively as it should.

At a Commission meeting last spring I asked a panel of industry, state and local government, and public interest group representatives their understanding of what a 'working emergency preparedness plan' is. They all said that a working plan is one that "protects public health and safety." And of course that is the mission and our ultimate goal. But I believe emergency preparedness is mature enough that the federal government can now do a better job of adding specificity into our regulations to define preparedness.

Certainly, the NRC has the 16 planning standards detailed in section 50.47 of our regulations and there is further guidance in Appendix E. And as 44 CFR 350 .5(a) states, these regulations "apply insofar as FEMA is concerned to State and Local governments." While those regulations and the guidance contained in NUREG-0654/FEMA-REP-1 from 1980 are helpful, there is something missing.

Thankfully, the public and the REP community has answered the call once again and helped the NRC staff figure out what those missing elements are. The results of a years-long comprehensive review of emergency preparedness regulations performed by the staff that has involved everything from evacuation studies to extensive and unprecedented public participation are in. The NRC staff proposed, and the Commission approved, beginning to implement enhancements to emergency preparedness regulations and guidance in three main areas: incremental improvements to the existing structure, the inclusion of security-based drills and exercises, and the longer-term exploration of a new radiological emergency preparedness paradigm.

Before I get into a brief discussion of these proposals, let me be clear that it is very early in this process. The agency will be working closely with FEMA and will be proposing the changes in a public rulemakings that provide the opportunity over the next 1-2 years for your input, suggestions, and concerns to be fully included. I trust that our agency will not only continue to listen to your comments but seek to truly resolve them before any of these changes are implemented in 2010. Tomorrow, NRC staff will be providing you with a detailed look at what will be in the proposed rule out for comment later this year but I wanted to briefly mention a few things here.

The first category of enhancements involves additional requirements for our licensees to provide government officials with 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 you and your public of an incident at a plant and performing periodic review and updating of evacuation time estimates to better assist you in making protective action recommendations.

The second category involves the inclusion of security-based drills and exercises, including a security-based scenario for one of the biennial exercises conducted during a 6-year cycle. These exercises may include a spectrum of simulated releases to better familiarize responders with different timing, duration, and severity of events. These exercises will pose some challenges for offsite response organizations, and the NRC and FEMA will need to work very closely with you to ensure they are valuable learning experiences for all of us.

Finally, I am encouraged about the idea the Commission approved exploring over the next few years which involves a different way to look at the NRC's role in emergency preparedness. We all face a number of demands on us, not enough resources to do them, and pulls in many different directions. I know there are several federal government agencies that state and local emergency managers must work with, and reorganizations have been the rule over the last several years. And I know that faced with those pressures and the important mission you do, the idea of a change to the NRC and FEMA regulatory structure for REP can be daunting. But I am here today to ask you to view this proposal with the sentiment captured in your mission statement "in the spirit of continuous self-improvement to.....create innovative planning, exercising, and training methodologies."

I am talking about a different approach that relies more on determining the ultimate goal of radiological emergency preparedness, clearly defining it, and working toward that goal together. It is just a seed of an idea right now, and to grow roots it will take your buy-in, but it is one that has intrigued a diverse group of stakeholders.

These stakeholders understand that in emergency preparedness, the NRC has requirements for developing and maintaining plans, but not for what they must be able to accomplish. In reality, the agency simply has procedural regulations. There should be better clarity for all of the different organizations involved to be able to do their jobs. There should be a focus more on abilities, and results rather than means.

As I see it, you are the emergency preparedness experts and you play the critical role of protecting your citizens. There will never be an NRC employee in your community, for instance, directing traffic in the event of an evacuation, but the federal government does have a responsibility to provide you with easier access to the nuclear expertise resident in the NRC to help you do your jobs in the event of a radiological emergency. As the staff holds public meetings and seeks comments on the proposed rulemaking, they will discuss ways to develop a set of attainable radiological emergency preparedness goals and then design steps to measure how well they can be met.

I believe the best way to do this is to embrace the development of a performance-based definition of reasonable assurance that can be implemented in a graded approach. The agency has defined performance-based requirements as those that have a measurable or calculable outcome. In general, a performance-based regulatory approach focuses on results as the primary basis for decision-making. This approach would result in the federal government being less intrusive, allowing you more flexibility to do your jobs.

So let us have a discussion about what the standard should be, let us quantify the protection that emergency preparedness plans and procedures should result in, and let us codify them in regulations that are transparent, objective, and measurable. I do not know what these new performance-based regulations would look like. They may focus on an evacuation time standard, an amount of dose that should be prevented, or a maximum dose that can be received. Because they would be performance-based, licensees and communities would have more flexibility to address their own challenges and develop their own unique solutions to reasonable assurance.

I think this effort should also be implemented in a graded approach. It should ensure the same amount of protection is afforded to citizens around all nuclear power plants and to do that resources need to be apportioned and efforts based upon the unique challenges of each EPZ. Having the flexibility to tailor your efforts in such a fashion would be an improvement over the current system which does not adequately recognize that each plant and each community are different. Because the NRC and FEMA regulations are mostly one-size-fits all, they do not take into account one of the fundamental principles of emergency management that all disasters are local: that each community is unique and local emergency managers must have the flexibility to adopt individual solutions.

Wouldn't it be better if you had the flexibility to look at all the hazards your communities face and put the risk from a rural nuclear power plant with a small neighboring population in its proper context? Making emergency preparedness regulations more performance-based and flexible should be pretty straightforward. Having this dialogue and moving our regulations in this direction will also make it more likely that officials could successfully make dramatic changes to protective action recommendations, if that is necessary in the future.

I am referring to the Sandia evacuation and protective action recommendation studies that the NRC has funded 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 or in communities with longer evacuation time estimates - it may be better for people to shelter in place rather than attempt to evacuate.

There is a widespread perception, however, that radiological emergency preparedness is equivalent to evacuation. Because there is such a belief among many members of the public that evacuation is the best option for a radiological emergency, any discussion about sheltering is seen as an admission that emergency plans will not 'work' and rather than focusing on the best way to achieve our common goal of protecting the public, the dialogue ends abruptly and results in a loss of public confidence. By making clear the ultimate performance measures, emergency officials are more likely to be able to gain the support of the very people who must listen, believe, and follow instructions to effectively shelter in place, if in fact that is the safest course of action for a given scenario.

The significant changes I have outlined will not be easy to accomplish because emergency preparedness is such a complex and emotional issue. It will require that the NRC continue work closely with its FEMA partner, with licensees, and with state and local emergency management officials, to continue to look for ways to make radiological emergency preparedness even more effective. We will address this issue honestly, directly, and with the full participation of stakeholders to strengthen our agency's credibility with the public and ultimately make the job each of us does a little bit easier to accomplish.

Together we can make even more progress in the years ahead. Again, I appreciate this opportunity to speak to you this afternoon. I would also welcome any questions and feedback you may have.