



# NRC NEWS

**U.S. NUCLEAR REGULATORY COMMISSION**

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## **“A Changing Paradigm”**

**Prepared Remarks by**

**The Honorable Gregory B. Jaczko**

**Commissioner**

**U.S. Nuclear Regulatory Commission**

**at the**

**Conference of Radiation Control Program Directors**

**Detroit, Michigan**

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I am pleased to be here today. Since 1968 your organization has played an important role in the regulation of radioactive materials – providing a forum for radiation protection officials to regularly communicate with each other. The regulatory work that the U.S. Nuclear Regulatory Commission (NRC) and state radiation control agencies do is vital because we are responsible for the safe use of the nuclear materials with which the public is most likely to come into contact.

Nuclear Power Plants get a lot of the publicity in this business, but it is the myriad of productive uses of radioactive materials in medical, research and industrial applications that provide the most opportunities for interaction between people and radioactive materials. This fact highlights the need for strong, effective, consistent and transparent regulation, control and security.

We understand the benefits of radioactive materials when properly handled. In the last year and a half I have visited medical facilities including Johns Hopkins University in Maryland and the University of Pennsylvania to meet with materials licensees and hear about the benefits and challenges they face in using radioactive materials for medical diagnosis, therapy and research. During my visit to the University of Pennsylvania I had an opportunity to stop by the Children’s Hospital. I met Dr. John Maris who oversees neuroblastoma treatments in children, which is an iodine-131 based therapy. Meeting Dr. Maris to discuss his work, in which parents serving as primary care givers are exposed to radiation during the treatment, proved to be an important discussion as I later approved a measure before the Commission allowing licensees to justify doses to care givers on a case-by-case basis.

We are all also very familiar with the improper use of these materials. I think I only need to invoke a single example to underscore the importance of setting clear rules and inspecting licensees to ensure they are meeting them – and it is an incident that occurred shortly after I became a Commissioner last year. An infant, not yet six months old, was being treated at a mid-western hospital. Through a mis-administered dose, this infant received more than twenty times the prescribed amount of technetium-99 metastable. The whole body dose to the patient was calculated between 5 and 10 REM.

Of course, we will never eliminate human error, but we have adhered to a philosophy of defense-in-depth to limit the negative aspects of incorporating radioactive materials into our everyday lives. That is where the NRC and state radiation control agencies provide the most value: ensuring that proper precautions are followed, due diligence is maintained, and enforcement actions are taken in the event of violations.

If I were giving this talk before 2001, I could probably wrap up a little early by concluding with a discussion of how we do that – how we regulate to control the use of radioactive materials to avoid unnecessarily exposing members of the public. Today, however, I must go further and focus not only on controlling these materials, but also on securing them.

There is an important distinction between controlling and securing. It is relatively new for the community that uses nuclear material to have to think about the possibility that someone would seek to use those materials for malevolent purposes. The events of September 11, 2001, have forced us into a new paradigm – one that not only requires the NRC and State agencies to continue to strengthen efforts to control sources, but to also better secure them.

This shift has broad implications for the relationship between the NRC and the Agreement States. The Congress recognized way back in 1959 that it could be beneficial to provide the federal agency responsible for regulating the use of radioactive materials with the authority to enter into agreements delegating to state agencies the responsibility for controlling their use. While the NRC has direct responsibility over approximately 4,500 licensees, those agreement states regulate more than 20,000 specific and 150,000 general materials licensees. With Minnesota recently becoming an agreement state – raising the number to 34 – those numbers continue to shift. This approach has proven to be efficient because proximity and familiarity fosters closer relationships between regulators and users of radioactive materials.

The recovery effort to ensure these materials were accounted for following hurricane Katrina demonstrates the effectiveness of the agreement state program. State officials were the first on the ground - and they coordinated effectively with the NRC and other federal agencies in accounting for the various radioactive materials and devices. While this arrangement makes perfect sense for the public health and safety issues related to controlling the use of these materials, it presents some challenges to the common defense and security responsibilities of the federal government.

One must look no further than last year's Energy Policy Act to see how the paradigm is changing – to see how the security of radioactive materials is an evolving and increasing area of focus. The Act added federal requirements for nuclear facilities and materials security. It added requirements for export controls of radiation sources, radiation source tracking, the creation of a Task Force on Radiation Source Protection and Security; requirements for fingerprinting and criminal history record

checks on individuals having unescorted access to radioactive materials, and the secure transfer of nuclear materials that requires people accompanying or receiving these materials to be subject to a security background check by an appropriate federal entity.

While the NRC has the primary responsibility for executing these new requirements, to succeed we must cooperate with other federal agencies – the Department of Homeland Security, the Department of Energy, the Department of Transportation – involved in ensuring the security of the U.S. As recently as March of this year, Customs and Border Protection committed to working with us to implement a program to determine the legitimacy of a license for entities bringing nuclear materials across the border. The NRC will continue to see an increase in requirements for coordination with a wide array of Federal, State, and local agencies related to protecting the homeland.

It is natural and appropriate for the NRC to play the leadership role in these efforts. After all, Agreement State programs, while a crucial part of the effort to control radioactive materials, are not in the position to lead federal government coordination activities relating to common defense and security.

The national source tracking system is a good example of how I believe federal and state responsibilities will complement each other in this new paradigm focused both on control and security. Agreement State programs will, of course, continue to have regulatory authority over the materials licensees in their states for public health and safety issues. The NRC will have a legitimate need for information from those licensees to incorporate into a new national framework designed to make all 50 states more secure. I believe a national source tracking system built upon the foundation of the NRC's common defense and security authority is critical.

I would like to comment on an important aspect of the national source tracking system -- I also strongly believe that we should seize the opportunity as the Commission finalizes the national source tracking system rule, to include category 3 sources which, when aggregated, could pose the same level of risk as category 1 and 2 material.

I would like to mention one other example of how the regulatory paradigm is changing. The Energy Policy Act also included broad new authority for the NRC to regulate naturally occurring and accelerator produced radioactive material (NARM). It will be beneficial to continue discussions with you about how you have handled these issues as we develop regulations to implement this program. Just as with the issue of security, the NRC is in a position with this new NARM authority to develop a consistent national framework for dealing with these issues that should benefit every state.

Finally, I would be remiss if I did not take the opportunity to mention how I think you can contribute even more to this new paradigm. In 1999 the NRC and the states looked into options for a National Materials Program from an alliance approach to the current blended option of the NRC delegating regulatory authority to some states and retaining it in others. In light of the changing paradigm that I have discussed here today, it may be an appropriate time to reevaluate the options for this program. As new national responsibilities are implemented, and the responsibilities for control versus securing sources are more clearly defined, it may make sense to move towards more states becoming Agreement States. This situation could allow for a more consistent nationwide framework of state and federal responsibilities and I look forward to hearing your views regarding this idea.

Again, I am pleased to have the opportunity to be part of your conference, and look forward to continuing to work in partnership with you on the important issues of controlling and securing

radioactive materials used daily in our society. Thank you for inviting me, I look forward to the presentations and discussions to follow, and I would welcome any questions you may have for me now or throughout the day.