



# NRC NEWS

**U.S. NUCLEAR REGULATORY COMMISSION**

Office of Public Affairs

Telephone: 301/415-8200

Washington, D.C. 20555-0001

E-mail: [opa@nrc.gov](mailto:opa@nrc.gov)

Web Site: <http://www.nrc.gov>

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**Expanding Challenges of the National Materials Program  
Building on Successes - Working Together**

**Prepared Remarks By**

**Dr. Peter B. Lyons**

**Commissioner**

**U.S. Nuclear Regulatory Commission**

**at the**

**39<sup>th</sup> Annual National Conference on Radiation Control  
Spokane, Washington  
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It is a pleasure to be here to participate in and address the Conference of Radiation Control Program Directors (CRCPD) Annual Meeting on behalf of Chairman Klein and my fellow Commissioners.

The theme of this year's annual meeting, "Radiation Protection: Expanding the Scope," is timely in light of the successes and challenges that both federal and state agencies face as regulators in this era of continuing emphasis on the security of radioactive material, continuing and growing public interest in our activities, and coordination with an expanding set of federal stakeholders within limited state or federal resources. Over the years, the U.S. Nuclear Regulatory Commission and the various states, Agreement and Non-Agreement, have established an effective and continuously improving working relationship as the scope of radiation protection has expanded.

## **Successes**

There are several examples that demonstrate the successful joint federal-state working relationship. For instance, the states and NRC have been working together to implement the Energy Policy Act of 2005 (EPAct), which assigns responsibility to NRC for the regulation of certain Naturally Occurring or Accelerator Produced Radioactive Materials (NARM), including discrete

sources of radium-226. In response to the EPAct, the Commission issued a waiver in August 2005 to allow all states to continue their respective programs until the waiver is terminated on or before the August 8, 2009, deadline.

For an Agreement State whose governor makes the required certification of its program, NRC will terminate the waiver about the same time as the effective date of NRC's final regulations, expected in late summer of this year. As of May 14, 32 Agreement States have sent letters addressed to Chairman Klein certifying that they have a program, which they intend to continue to implement, for licensing byproduct material as defined by the EPAct that is adequate to protect public health and safety. These certifications are in accordance with the plan for the orderly transition of regulatory authority for the new byproduct materials resulting from the EPAct. NRC staff is continuing to work with the remaining two Agreement States to receive certification letters before the transition plan is published. NRC is working with the remaining states to ensure a smooth transfer of licensing information for the new byproduct material.

With the assistance of the states, NRC is also in the process of amending its rules to modify the definition of "byproduct material" to include the new material and the development/revision of licensing and inspection guidance and training programs to address the new EPAct requirements.

Non-Agreement States have the option of either having NRC assert regulatory authority over these materials or entering into Section 274b agreements with NRC for regulation of these (and other, if desired) materials. For Non-Agreement States that do not enter into a Section 274b agreement with NRC, NRC will use a phased approach to terminate the waiver and assert jurisdiction, with the initial phase beginning on the effective date of the rule. NRC is working on new agreements with the states of Pennsylvania, Virginia, and New Jersey.

NRC staff will be sponsoring a Special Interest Session on Wednesday morning, titled "Status of NRC Activities for NARM," and I encourage your attendance. Last year's Special Interest Session discussion on the governor's certification process helped enhance the NARM transition plan and we are looking forward to your input this year as well. These meetings provide a unique opportunity for NRC and states to discuss a wide range of activities.

The Agreement States have been key participants in increasing the security of nuclear materials under their jurisdictions. Under the program to implement the increased controls requirements, a joint initiative was worked out in close collaboration between NRC and all Agreement States. The Agreement States have exercised their health and safety authority to increase the materials controls and accountability of certain materials licensees. All of the necessary actions to implement these controls have been in concert with those required of NRC materials licensees. This has involved continuous interaction through a working group, routine conference calls, and written communication. This coordinated effort has been a very successful endeavor, and we appreciate the state support for this national program.

Approximately 1,700 of the NRC and Agreement State increased-control licensees will need to be inspected within the 3-year time frame established by the Commission. Within the first year, approximately 1,000 licensee inspections are being conducted. Agreement States and NRC staff expect inspection efforts to continue on schedule, and we appreciate your outstanding support of this program. We have begun to review this program area under the Integrated Materials Performance

Evaluation Program (IMPEP), and I am pleased that no significant or generic issues have been identified.

Another example of a growing working relationship and expansion of radiation protection is in the area of border protection and internal security, to address the potential malevolent use of radioactive material. The Agreement States are continuing to work closely with NRC and the Department of Homeland Security's (DHS's) Domestic Nuclear Detection Office (DNDO) to implement the U.S. border and internal security initiatives for certain radioactive materials. This joint effort will be enhanced by the National Source Tracking System (NSTS) mandated as a part of the EPAct. Again, as with the NARM regulation, there has been extensive and meaningful consultation and consensus building opportunities at each step along the way.

You may recall at the last Commission meeting with the Organization of Agreement States and CRCPD, that one of the concerns raised in the briefing was the multiple requests to the states for information from other federal agencies and their impact on states' resources. The Commission took these concerns seriously. Later that same day, the Commission met with DHS senior management and raised this issue, citing the requests that the DNDO is making of the states. Subsequently, with your feedback, we sent letters to DHS and DNDO on this concern and provided initial cost estimates, developed by Colorado, associated with alarm adjudications. NRC also offered assistance in facilitating an interface between the states and the DHS.

About the same time as our letters, DNDO asked NRC's Office of Federal and State Materials and Environmental Management Programs for assistance in finding Agreement State volunteers for its radioactive material detection pilot program. DNDO provided a draft Memorandum of Agreement between DNDO and the participating Agreement State that outlines the specifics of the pilot program, including the justification for a national license database. NRC staff is working with DNDO to better define the scope of the pilot and will be providing you with information about this program shortly.

Finally, I would like to take this opportunity to thank the state representatives who also serve as the State Liaison Officers for a very successful meeting last August. As I stated at the OAS meeting last September, I strongly agree with Chairman Klein in his statement at the 2006 State Liaison Officers meeting that:

“State Radiation Control Programs perform an extremely valuable function for their citizens and for the country as a whole by taking on such a significant regulatory role. The NRC has always been appreciative of these efforts.”

## **Current Efforts**

Following the successful model used for the increased controls requirements, a joint working group with representatives from CRCPD and OAS has been formed and is developing an implementation plan, related guidance, and generic communications associated with the fingerprinting requirements.

We continue to work actively with the states regarding the replenishment of potassium iodide (KI) stockpiles within state radiological emergency preparedness programs. As noted in the NRC staff's response to Pearce O'Kelley on February 16, 2007, we share the states' view that this is an important issue, and the NRC has been actively working with the states on this initiative. The NRC

sent letters to the eligible states on October 26, 2006, informing them of our intent to replenish the original stockpiles and asked the states to respond to the NRC with their requests. We also held telephone conferences with the states in January 2007 to discuss options for replenishment of KI. In our discussions, several states expressed interest in pursuing shelf-life extension for their existing KI stockpiles, and others suggested that KI replenishment would suit their needs. We also committed to working with the states to develop information suitable for publication on NRC and state websites that will help to answer questions from stakeholders regarding shelf-life extension. We have received KI replenishment requests from 21 states. Eight have received KI, and two are due in 2008. Seven have deferred (i.e., shelf-life extension) to 2009. One does not need KI until 2012, and three are pending until the new contract to procure new KI supplies is awarded.

With completion of the National Source Tracking System rule, the NRC staff explored expansion of its planned NSTS training program to provide funds for related travel to Agreement State personnel. I am happy to report that NRC plans to fund NSTS training-related travel for up to two individuals per Agreement State.

## **Challenges**

All of these important health and safety coordinated programs require the availability of an adequate number of qualified staff, both at the NRC and in the states. Human capital issues were one of my primary concerns as I joined the NRC, and they remain so today. Nuclear technologies continue to benefit us in many ways and, therefore, will continue to be a critical focal point of many national security, foreign, energy, and environmental policies for the foreseeable future. With this assumption, it follows that the nation needs a highly educated, well-trained work force. Although we are making some progress in this vital area, far more work is needed.

With a forecast for 50 percent growth in electricity consumption by 2030 and increased recognition of the potential impacts of global warming, the nuclear power industry projects strong growth. But in a December 2006 report, the American Nuclear Society (ANS) estimated that almost a third of the current nuclear workforce will reach retirement in the next 10 years. The report notes that the Department of Energy (DOE), the national laboratories, other federal and state agencies, nuclear technology companies, and university nuclear engineering departments are currently experiencing a significant shortage of qualified people for new hires. We are competing for the same set of resources! The report further recommends that the U.S. government, specifically the DOE, serve as steward for national nuclear research and educational enterprise. I could not agree more strongly with the view of the ANS that the DOE must provide this support.

The human capital needs of many federal, state, and local government agencies, as well as medical, manufacturing, research and development, and energy industries, for an educated and well trained workforce are widely recognized. The Nuclear Energy Institute (NEI) estimates that 26 percent of engineers working in U.S. nuclear utilities will be eligible for retirement in the next five years. The NEI also estimates that 90,000 entry-level workers will be needed to support existing industry operations through 2011. In Congressional testimony, the NRC has strongly supported increased federal support for the key training programs.

In addition to hiring new people, they must also be trained. Training of staff is a key component of an effective and efficient radiation control program. As Ruth McBurney noted in her March 6, 2007, letter to Chairman Klein following her visits with the Commission and staff, "Training for state radiation control personnel is the most significant need for state programs." We are

continuing to explore ways to facilitate training where possible. NRC staff plans to provide the Commission with funding options for deliberation. This will not be an easy decision for the Commission. We, too, have funding constraints, and our decision is further complicated because we are a fee-based agency. But this is a shared responsibility, and you, too, must develop creative approaches and solutions to address this important issue.

Another priority for CRCPD identified in Ms. McBurney's letter was the participation of NRC headquarters and regional offices staff in CRCPD working groups and at the annual meetings of CRCPD and OAS. We are committed to supporting the CRCPD and OAS meetings, but we all must be realistic that limited resources may at times impact this participation. I am happy to report that, in addition to my participation, the NRC has over 20 headquarters and regional representatives at this meeting and is continuing to support the working groups. I know NRC staff intends to take the opportunity to talk to many of you during this time here. We consider these meetings important to the continued health of our working relationships and our expanding responsibilities.

Both high- and low-level waste initiatives may challenge the NRC and the states. We face a monumental task in the review of a license application for a potential Yucca Mountain high-level waste repository. Low-level waste issues may also present special challenges, especially since the Barnwell site closes to out-of-compact wastes in 2008. The nation could then be without storage for Classes B and C wastes, a far from ideal situation. The NRC and the states will be faced, in all probability, with assuring that the absence of disposal capacity for such wastes does not translate into unsafe storage of such wastes by the licensees generating it. Lastly, NRC may need to consider the first-time use of the provisions in 10 CFR Part 62, regarding emergency access to low-level waste disposal facilities.

In anticipation of this development, we are taking certain concrete steps that will help to mitigate the impact of the closure of Barnwell. We are currently reviewing our low-level waste storage guidance for materials licensees and will be updating it in the next year. We are coordinating this effort with state officials. In addition, the nuclear power industry is developing low-level waste storage guidance, which it intends to submit to NRC for review and comment in the near future.

The last challenge I'll mention is in the byproduct materials security area. The NRC Office of Inspector General (OIG) recently issued a report on byproduct material security. The OIG concluded that NRC has not adequately identified and evaluated byproduct materials security risks. The OIG recommended that an independent panel be convened to identify agency vulnerabilities concerning materials licensing and tracking program and to validate the agency's ongoing byproduct material security efforts. The OIG also noted several additional issues, including that the NRC did not adequately adopt its security approach and has not closed gaps in its materials licensing process.

The OIG made reference to earlier OIG and Government Accountability Office reports which stated that NRC does not track all dangerous byproduct material, specifically noting that the International Atomic Energy Agency (IAEA) classifies sources into five categories and that the NRC is not tracking Category 3 sources. OIG also noted the Congressional criticism of NRC materials security efforts, and that the use of a graded, risk-informed approach was not supported by a rigorous analysis to justify these actions. Noting the NRC's use of prompt fatalities in the consequence analysis, OIG concluded that NRC policy does not recognize all effects of a dirty bomb, including socioeconomic, psychological, environmental, and other effects.

NRC staff is disappointed that the report did not recognize the substantial efforts that the NRC and Agreement States have undertaken since 2001 in this area. Staff agrees with the benefits of an independent assessment of NRC programs. However, staff believes that such an independent review has been conducted through the Task Force on Radiation Source Protection and Security. This interagency Task Force was chaired by NRC's chairman and had active state participation. The Task Force found no significant gaps that are not already being addressed and concluded that there is reasonable assurance that the highest risk sources in the United States are safe and secure. The issue before us, NRC and states, is whether the current byproduct materials security efforts are adequate. NRC staff is developing its response to the OIG report, and I welcome your feedback during my visit here at your conference.

Finally, the Office of Federal and State Materials and Environmental Management Programs or FSME has been in existence since October 2006. I believe it is strengthening our integrated national program. The new office, in cooperation with the states, licensees, the public, and other stakeholders, continues to develop and implement rules and guidance for the safe and secure use of source, byproduct, and special nuclear material in industrial, medical, academic, and commercial activities, as well as for decommissioning, uranium recovery, low-level waste, and incidental waste sites. The Commission was briefed earlier this month on the first seven months of operation by the new office. We look forward to your input and continued cooperation, as we face new or changing areas of regulation and especially to your feedback on the success of the reorganization.

I continue to look forward to enhancing the NRC and state partnership through our new organization. I look forward to continued success in our joint endeavors as we expand the scope of radiation protection. Again, thank you for this opportunity to address you today, and I look forward to discussion at this and future CRCPCD meetings.