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# NRC NEWS

**U.S. NUCLEAR REGULATORY COMMISSION**

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## **Remarks of Chairman Nils J. Diaz**

**to the**

### **IAEA International Conference on Topical Issues in Nuclear Installation Safety: Continuous Improvement of Nuclear Safety in a Changing World Beijing, China**

**October 18, 2004**

Thank you. It is my great pleasure and privilege to speak with you today on a subject that I believe needs to receive much more attention -- how nuclear regulators have, and will continue to make vital contributions in ensuring nuclear safety, security, and preparedness. Nuclear regulators need to be recognized and supported in order that they can continue to enable the safety and security of nuclear power as a significant component of the world's energy supply. Regulators use a variety of frameworks to implement their activities, but all share common objectives.

Eight years ago, almost to the day, the Convention on Nuclear Safety (CNS), a key framework for regulators, was approved and entered into force for the signatory nations with civilian nuclear power programs which recognized the importance of ensuring that the safe use of nuclear energy needs to be well regulated and environmentally sound. The key CNS' objectives are, and I quote:

- "to achieve and maintain a high level of nuclear safety worldwide;
- to establish and maintain effective defenses in nuclear installations against potential radiological hazards; and,
- to prevent accidents with radiological consequences and to mitigate such consequences should they occur."

The CNS' framers were interested in promoting a high level of nuclear safety and an effective nuclear safety culture globally. The Convention entailed a commitment to the application of fundamental safety principles for nuclear installations rather than to detailed safety standards.

However, this original intent to give regulators and operators helpful directions on how to be more safety conscious has entered into the world of the 21<sup>st</sup> Century. As such, the Convention of Nuclear Safety is now even more important to the commonwealth of nations that have committed to it.

We need to recognize that there are threats we did not foresee ten years ago, that there are not just the possibilities of operator error, but of malevolent actions being taken against nuclear facilities that could cause significant consequences. Therefore, the concept of “safety” has undergone a significant revision in that we now recognize that safety also includes security and preparedness.

During the G-8 Nuclear Regulators Conference in Moscow in June of this year, a “Statement on Guidelines for Nuclear Safety and Security Regulatory Authorities” was developed. The objective for it is to complement the Convention on Nuclear Safety in supplementing the regulator’s responsibilities. It is the G-8’s intent that these Guidelines are available to all countries with civilian nuclear programs so that they may consider them as they enhance their regulatory framework, both for nuclear power plants and other nuclear installations. This is especially necessary in countries that are undergoing changes in their political infrastructure and when the legal and practical authority of the regulators need to be clearly defined. The G-8 Guidelines stated that, in order to accomplish the mission of being strong, effective, credible, transparent, and independent protectors of the public health and safety, security, and the environment, the nuclear regulator needs the necessary infrastructure and expertise, including the power to:

- regulate nuclear facilities and types of activities associated with the use of nuclear energy and utilization of radioactive materials,
- develop, and after approval to issue rules, regulations or other requirements to ensure safety and the protection of the environment,
- conduct a licensing process and to perform independent safety evaluations, as necessary,
- enforce the regulations,
- perform analysis to support the development of such rules and regulations and other requirements,
- require operators using nuclear energy and radioactive materials for civilian purposes to provide the information and reports about their activities,
- inspect the activities dealing with nuclear energy and radioactive materials,
- require compliance with license conditions and fulfillment of regulatory decisions, as well as to require remedial action for violation of regulatory requirements and to impose penalties, including suspension of operation,
- secure resources to conduct its activities effectively, and to attract and maintain a highly competent and respected technical staff,
- require the operator fulfill its primary responsibility and maintains competence for ensuring safety, and
- require appropriate emergency preparedness and response capabilities.

These are not new, yet together they form a simple yet compelling set of the authority and responsibility needed to exercise the mandate to protect the public and the environment from the regulated uses of nuclear materials.

The U.S. Nuclear Regulatory Commission is addressing these safety, security, and preparedness needs both in our day-to-day activities and in our revised Strategic Plan, which states that the NRC’s mission is to:

License and Regulate the Nation's Civilian Use of Byproduct, Source, and Special Nuclear Materials to Ensure Adequate Protection of Public Health and Safety, Promote the Common Defense and Security, and Protect the Environment.

This is further captured in the Strategic Goals that we use to establish quantitatively how we are achieving our mission:

- I. Safety: Ensure Protection of Public Health and Safety and the Environment.
- II. Security: Ensure the Secure Use and Management of Radioactive Materials.
- III. Openness: Ensure Openness in Our Regulatory Process.
- IV. Effectiveness: Ensure That NRC Actions Are Effective, Efficient, Realistic, and Timely.
- V. Management: Ensure Excellence in Agency Management to Carry Out the NRC's Strategic Objective.

The CNS has affirmed that the responsibility for nuclear safety rests with the State having jurisdiction over a nuclear installation, in the form of a properly constructed and authorized regulator. I agree and believe that the primary responsibility for nuclear safety resides with both the operator and the regulator. As I acknowledged during the “Global Threat Reduction Initiative (GTRI) Partners Conference” in Vienna, Austria, last month, the various national nuclear regulators may approach and resolve safety issues in different ways, but we understand that these differences do not equate to different goals or results. All of us are focused on ensuring adequate safety and security for nuclear power plants and radioactive materials of concern. However, I believe that we should, to the extent practicable, share information, expertise, and operating experience lessons learned to better allow all of us to achieve our mutual goals of safety, security, and preparedness.

Regulators historically have the expertise and have been capable of conducting the activities needed to address safety, security, and preparedness concerns in this post-9/11 era. Independent regulators can be centers of disciplined change, but only if they have, as the CNS states, adequate financial resources to support the safety of each nuclear installation and sufficient numbers of qualified staff with appropriate education and training. An independent and credible regulator with sufficient resources is a tremendous asset to both their nation and the international community, an asset that needs to be recognized and appropriately utilized by their nation.

As nuclear regulators, our primary responsibility is to provide, consistently and unmistakably, adequate protection from radiological hazards, including those resulting from terrorist acts, while preserving the benefits that the nation accrues from the use of nuclear materials and radioactive materials. We are also part of a well-established international network centered on the civilian uses of radiation, with well-known communications links, that is continuously addressing matters of importance to our nations and to the international community. These elements make nuclear regulators natural partners, and these are also the reasons that regulators need to be recognized and appreciated for the necessary work they do, day in and day out.

We need to be prepared, with the right tools, to face the challenges of a more technologically advanced and a more energy demanding world. By giving regulators the necessary legal authority and the appropriate resources, and by encouraging that they work closely with their international counterparts to share knowledge, expertise, and to develop internationally acceptable standards and regulations, we will be better able to ensure the safety and security of this essential component of the

Twenty-First Century energy mix.

The NRC is ensuring that we have in place appropriate and realistic regulations and processes that will enable this next generation of reactors to be safely and securely built and operated. As such, we have developed a design certification process that provides a stable and predictable licensing process for new nuclear power plant designs. This process resolves safety and environmental issues before authorizing construction, thus reducing licensees' financial risk while allowing for timely and meaningful public participation. However, we have retained the capability to effect changes to insert technological advances via a disciplined license amendment process. Further, by placing the approved designs under a restrictive change process, that applies to both the regulator and the applicant for design certification, we have reduced licensing uncertainty. The Commission assures license applicants who reference a certified design that the safety issues already resolved will not be needlessly reconsidered during the plant licensing process. The NRC has issued rules certifying three standard designs -- the Advanced Boiling Water Reactor (ABWR), System 80+, and the AP-600 -- and the AP-1000 design, which has received a safety evaluation report and final design approval, is now in the rulemaking phase of the certification process.

Earlier this year, I proposed to the Generation IV International Forum (GIF) meeting in Paris, France, that the development and international adoption of a regulatory framework that can establish the appropriate safety requirements, compatible with the ongoing evolutionary nature of today's nuclear technologies, is the logical next step. This internationally acceptable framework could put into place a consistent set of regulatory requirements that any nuclear vendor and utility could utilize in designing and building new power plants. Specifically, I offered the NRC's design certification process as a starting point for the world's nuclear regulators to use in starting to build an internationally-acceptable regulatory framework.

The IAEA has a tremendous job to do in supporting and advocating safety and reliability, and that includes advocating regulators' capabilities and expertise, and, in doing so, they will be championing nuclear safety, security, and preparedness worldwide. It is time to move forward from "a nuclear accident anywhere is a nuclear accident everywhere," to "a nuclear safety improvement anywhere is a nuclear safety improvement everywhere," and that is everyone's job.

Thank you.