NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION

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ENERGY SECURITY AND SECURITY

Remarks by

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I am really very pleased to make a few remarks today at this second Americas Nuclear Energy Symposium. I also participated in the first Americas Nuclear Energy Symposium, and I believe this meeting was as successful and productive. There are two aspects of security I would like to discuss today, the physical security of nuclear facilities, and the national security provided by having abundant and reliable energy such as that provided by nuclear power.

National security is now the dominant concern of this country and many others, and could remain so for quite some time. Our national security begins and ends with the principles and practices of our democratic society, and with every component of our society that assures our freedom and the pursuit of happiness. Our national security does not depend on any one component, but rather on multiple layers of systems, infrastructures, and structures, as well as other protective elements. Achieving a proper balance among them is the present challenge.

I believe energy security is a key component of national security. The safe and reliable operation of nuclear power plants is vital to our energy security and, therefore, to the well-being of our people. Thus, it is the responsibility of the NRC as regulators charged with protecting the "common defense and security", to bolster nuclear facilities' defenses.

There is a need to achieve a balance of physical security, operational and safety activities and to forge a new mission, particularly in the nuclear area. The new mission is to assure that all that we in the Americas hold dear not only will survive, but will keep us moving forward, within the present threats to our security and our well-being. National security initiatives are key to the fulfillment of this

mission. Thus, I believe the new mission ties national security even clearer than before to the safety and the physical security of NRC licensed facilities. The new security framework must include both strengthened security by licensees and a clear role for government in providing security beyond the licensees' capabilities, while maintaining the ability of these industries and users to fulfil their intended functions.

The on-going national security debate has now a clear set of "what should be done" initiatives, and many have already been completed. I believe that we have learned quite a bit post-September 11 and we know better now what ultimately needs to be accomplished. We could have waited to know a lot more about what was and would be needed. But I thought actions were required, early, and actions were undertaken with very significant improvements in many aspects of the security infrastructure. In the nuclear arena, regulations have to be balanced to be really effective. Therefore, there are two phrases that I like to repeat whenever I get the chance because I believe they are applicable to nuclear regulation, applicable to the nuclear power option as well, and obviously applicable to nuclear security.

"There is no such thing as zero risk. There is only one way to get zero: $0 = 10^{-\infty}$"

"Regulations need to result in a benefit or they will result in a loss."

For nuclear power plants, where the threat is terrorism and sabotage, security is a subset of safety. Prior to September 11th and even more so today, security is very important; however, it should not overwhelm the safe operation and regulation of nuclear power plants. Security of nuclear power plants must be established in an integral manner with all the safety objectives and all their safety features, internal and external to the plant, and be consistent with the overall requirements of national security. I also believe that it is wrong to base decisions on worst case scenarios that are highly unlikely. Policy-making cannot be based on unrealistic worst case scenarios.

Let me move on to some of the specifics of what we have achieved in the area of physical security of nuclear facilities in this country. First let me say that before September 11, 2001, nuclear power plants were among the best defended and most hardened facilities of the Nation's critical infrastructure. In the past year the NRC and the industry have taken many additional actions to enhance physical security even further. We first issued Advisories and then binding Orders to each operating power plant reactor licensee specifying actions they must take to continue and improve the high level of security to protect the plants, and thereby to protect the public health and safety and common defense and security. Subsequently, we have issued Orders to fuel conversion facilities, decommissioned reactors, gaseous diffusion plants and category 1 fuel facilities. We are working with research and test reactor licensees to develop confirmatory action letters. We are ready to issue Orders for the transportation of spent fuel and are rapidly converging on the protection of nuclear materials for the nation, on a risk informed basis.

In this public forum I cannot discuss the classified details of the actions we have required; however, I can say that for most facilities the orders include increased patrols, augmented security forces and capabilities, additional security posts, installation of additional physical barriers, vehicle checks at greater stand-off distances, enhanced coordination with law enforcement and military authorities, and more restrictive site access controls for everyone. These are significant actions that we have required. It has been a fairly large, necessary burden on both the NRC and the industry to develop and implement these measures, but I believe well worth it.

The actions that we have required are the result of our review of the NRC's safeguards and security programs. The NRC is also revisiting and revising the so-called Design Basis Threat (DBT), evaluating the consequences of an airborne attack, evaluating the adequacy of security exercises, and improving processes associated with access authorization and background checks.

The DBTs characterize the adversary against which certain NRC licensees, for example nuclear power reactors, must design their physical protection systems and response strategies. The NRC periodically assesses the adequacy of the DBTs and makes revisions as necessary. We are close to formally redefining the design basis threat based on new information. But we have not really waited for this definition; we acted in February of this year with a new set of security requirements that, in more ways than one, respond to the increased threat.... and they are good.

On the area of response to the terrorist attacks, the NRC has been conducting force-on-force security exercises since 1991, known as Operational Safeguards Response Evaluations (OSREs), at nuclear power sites and carried out similar tests before that time. These are tough, simulated commando-style raids, designed to identify shortcomings in security personnel performance or strategy. Identification of a weakness during an exercise leads to immediate corrective or compensatory measures. We are not aware of any comparable performance testing of security measures for any other commercial facilities in the United States. As I said earlier, the NRC is currently in the process of evaluating the adequacy of security exercises. This evaluation includes site-visits to confirm the response to the actions that we have required. We expect that improvements in how to evaluate licensee performance will lead to further improvements in licensee defensive capabilities, including their ability to defend against the various types of potential attacks and their multiple variations.

With respect to intentional aircraft crashes, the NRC believes that the Nation's efforts to provide protection against terrorist attacks by air should be directed toward enhancing security at airports and within airplanes instead of defending all potential targets such as nuclear power plants. Nevertheless, licensees have implemented certain actions as a result of the NRC advisories and Orders already mentioned to mitigate the effects of an aircraft attack and we are conducting detailed engineering studies to determine plant vulnerabilities to aircraft attack as well as the effectiveness of mitigation strategies. I believe too much has been made about the damage to a building or a facility. The protection of public health and safety does not rely solely upon the ability of a reactor containment or other structure to fully withstand an attack of a commercial jetliner. Nuclear power plants have multiple layers of physical structures as well as redundant safety systems and components. There are also other important protective measures, including the effectiveness of the emergency response infrastructure. All of these elements serve to ensure the adequate protection of public health and safety. Since time does not allow me to discuss all the various actions that we have undertaken in these areas, let me just say that they are extremely extensive and we are taking the appropriate actions to protect the public, in a multi-layered approach that enhances that protection.

So let me conclude with a few points:

- Our national security does not depend on any one component, but rather on multiple players of physical structures, systems and infrastructures. They have all been strengthened.

- Achieving the proper balance among them is the present challenge. Too little is not acceptable and too much could be detrimental.

- I believe that having abundant, reliable, and economical energy is a national security issue, and that nuclear energy is a key contributor to it our energy portfolio. The U.S. needs policies and actions that decrease our dependence on foreign sources, and 9/11 has accentuated this need.

- We have required significant action to enhance physical security. It has been a fairly large, necessary burden on both the NRC and the industry to develop and implement these measures, but I believe well worth it.

- Security at U.S. nuclear facilities is already where it should be: significantly enhanced from what was already good.

- Consequences are one of our best stories. Public health and safety consequences might very well be one of nuclear power and radiation technologies' strongest and most favorable arguments when comparing risks and benefits. Whether you compare normal operations, accidents or even a catastrophic release of radiation like Chernobyl, health and safety consequences can be found to compare favorably with other societal risks, if realistically portrayed.

- We are working at both ends of the spectrum on security against terrorist attacks: decreasing the probability of success and decreasing potential consequences, therefore decreasing the overall risk to the nation.

- I will work to ensure that common defense and security activities are an integral component of the NRC's regulatory framework, and that they work together to maintain our way and quality of life.

The Department of Energy and the NRC have been comparing notes on security issues. For example:

- In the area of the DBT and the postulated threat, we have had discussions with DOE about their proposed DBT revisions and the NRC and DOE are both working with DOD and others on the postulated threat.

- We are currently working with DOE, as we did in 1986, to do a comparability review of Cat 1 facilities and Cat 1 and 2 shipments.

- We have been working with DOE on several projects and working groups addressing threats from radiological dispersion devices.

- We are also coordinating with DOE on interim compensatory measures in the transportation area.

We have also been talking with our Latin American friends about security.

I look forward to continued cooperation by all in ensuring the security of the Americas, and I congratulate you all on a successful symposium.

Thank you.