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**

Web Site: http://www.nrc.gov/OPA

No. S-05-003

Remarks of Chairman Nils J. Diaz
to the
NRC Regulatory Information Conference
Washington, D.C.
March 8, 2005

I. Introduction

Good morning to you all, and once again, on behalf of the Commission, let me welcome you to the 17th Annual NRC Regulatory Information Conference (RIC). This annual conference is now recognized as a unique and important gathering in the world of nuclear energy and its regulation. As the NRC's foremost conference and workshop, it is an important forum for discussing the issues and priorities that are central to this agency, its licensees, and its stakeholders, and based on the large number of participants from outside the United States, it is also important to the international community. The conference is now a regulatory event in itself, and a good one at that, and I want to congratulate and thank the staff for having made the RIC more informative and more useful with every passing year.

Let me pause to extend a personal welcome to Commissioners Greg Jaczko and Pete Lyons. I hope that you will enjoy the candid and informative discussions that make this conference so useful; and I look forward, as I am sure we all do, to your own presentations, and to hearing your views.

I would be remiss if I did not also recognize Commissioners McGaffigan and Merrifield, for their long and distinguished service to the agency and to the American people. Commissioner McGaffigan has been at the Commission for over 8½ years, Commissioner Merrifield for over 6½, and it has been a privilege to work with them. I would like to recognize especially their efforts after 9/11, when the agency faced the challenge of progressively enhancing the safety, security, and preparedness of nuclear facilities and materials, while simultaneously continuing to perform, with undiminished attentiveness, all the agency's other duties. Moreover, during the two years I have served as Chairman, the knowledge, experience, and perspectives they have brought to Commission decisionmaking, and their wise counsel, have been invaluable to the agency, and to me personally.

Finally, I want to express my thanks to the NRC staff. The three and a half years since 9/11 has been a period of major and fundamental change. During this time, the NRC staff has worked very

closely with the Commission in addressing an array of issues that are vitally important to the safety and security of the American people. In doing this work, we have realized that there must be new ways of doing things at this agency, including paying painstaking attention to security issues and to their effective integration into our overall effort to protect the American people. These efforts have involved all NRC offices, both at Headquarters and in the Regions. Throughout the agency, members of the NRC staff have put their best efforts forward, with long hours and hard work, to achieve and sustain improvements in safety and security and to establish stability amid change. The NRC and the country as a whole are the better for it, and we are in their debt.

It is generally expected that the Chairman's talk at the RIC will serve as a kind of "state of the agency" message, offering his or her view of where things stand with the NRC and the industry it regulates, where they are headed, and the problems or challenges ahead. I plan to use that approach today in discussing some key safety, security, and preparedness activities, and the need to manage them well.

Where do we stand today? My bottom line is that I am confident that the Commission has discharged, and discharged well, its responsibility to ensure adequate protection of public health and safety, the environment, and the common defense and security. This is not just a broad claim; it is a fact-based assertion.

The Nuclear Regulatory Commission, faced with the tough task of ensuring adequate security amid the changes and uncertainty brought to this Nation by the demonstrated threat of terrorism, continued its strong stewardship of nuclear safety. Maintaining or improving the safety of civilian uses of radioactive materials did not take second place to security; on the contrary, safety was maintained or improved while security improvements were implemented, and progress was made in every key aspect of our responsibilities.

I believe the NRC is a rock-solid organization that fulfills its safety mandate consistently and especially when changes are required or advisable. I value our demonstrated capability to maintain stability in policy, decision-making, and regulatory outcomes during both calm and stormy weather.

The word "stability" is often used in the regulatory context to signify certainty or predictability regarding standards, and it surely can have that meaning. I propose that there is another kind of stability, a dynamic stability, a path forward, one which results from having both the industry and the regulators consistently committed to excellence in safety management: doing their very best, with resolve, all the time. Stability is best achieved when both the regulator and regulated are doing the right thing. Doing our very best necessarily includes understanding what is important and acting accordingly on that knowledge; the common focus must be safety. It means seeking the right answer if you don't have it and communicating it once you do. In this industry, of all industries, the approach to operating plants or regulating plants must *include* these principles.

Stability is strongly tied to effective management and that in turn means accountability and communication. The NRC, realizing that improvement in the area of communications was overdue, undertook many initiatives to improve the exchange and management of information. Managing with accountability means knowing who is responsible for what, up and down the chain of command, and acting on that knowledge.

The agency is managing well all the functions relating to the safety, security, and emergency preparedness of our licensed facilities and materials. Overall, I have a high level of satisfaction with safety management by the industry. The good overall record makes any outlier stand out.

II Safety

Safety continues to be the cornerstone of all our work. In our triad of goals – safety, security, and emergency preparedness – safety is the central, overarching element. Everything the NRC does is done for safety; we are a safety regulator.

I believe we have made great strides in recent years, as we have moved progressively to make the regulation and operation of nuclear power plants more risk-informed and performance-based. Risk-informed, as used in this context, means the use of *actual* risk insights reflecting probabilities and consequences, as best we can calculate them, in a manner that I describe as "realistic conservatism." That means with conservative safety margins, to be sure, but grounded in well established scientific and engineering principles and using real data, actual experience, and meaningful projections. I am convinced that risk-informed and performance-based regulations are key contributors to safety enhancements and to the stability of our regulatory framework.

I strongly favor the active implementation of risk-informed and performance-based regulation and operations. The principles supporting the development and use of risk-informed and performance-based regulation have been clearly articulated by the Commission in recent years. Furthermore, they are reflected in repeated Congressional pronouncements. The risk-informed and performance-based approaches are now such integral parts of the fabric of regulation, and their value is so evident, that I am confident they will endure and prosper.

There are many examples throughout our regulatory programs of the risk-informed and performance-based mode of regulation, which began to accelerate in the practical sense with the changes to Part 50.59, the implementation of Regulatory Guide 1.174, and the "(a)(4)" changes to the Maintenance Rule. Continuing problems with the SALP process, the Senior Management Meetings, and the old "watch list," and our improved understanding of the use of risk insights, led to NRC's development of the Reactor Oversight Process (ROP) and Significance Determination Process (SDP) with active industry and stakeholder involvement. The objective in developing this new reactor oversight process was to provide the tools for inspecting and assessing licensee performance in a more risk-informed, more predictable, more understandable, and more practical manner than the oversight processes of the past. Mission accomplished. I also know that simplicity and coherence are beautiful, and improvements in simplicity and coherence are needed, and will be made, in the ROP and the SDP.

Two major steps on the road to a fully risk-informed and performance-based regulatory program were the rulemaking activities initiated to consider special treatment requirements (10 CFR 50.69) and Large Break LOCA re-definition (10 CFR 50.46). The 50.69 effort has been completed and is ready for implementation. The 50.46 rulemaking is progressing well, and I expect a proposed rule shortly. I also expect that the implementation of 50.46 will provide the opportunity to enhance safety and facilitate resolution of such issues as long-term recirculation cooling. Fire protection is another area where we continue to make progress towards a more risk-informed and performance-based regulatory regime. I am very pleased by the recent announcement by Duke Power that it plans to transition its plants to NFPA-805. I expect and encourage many more to follow suit. For both 50.46

and 50.69, as well as 50.48, risk insights allow attention to be focused on the truly important, risk-significant systems, components, and scenarios. These and other risk-informed efforts will continue, and need to continue. They are fundamental elements in our program to focus our regulatory attention, our regulatory requirements and our regulatory practices away from risk-insignificant issues to risk-significant ones. I believe, now more than ever, that the risk-informed and performance-based efforts should ultimately result in a new set of reactor regulations, a new Part 50, risk-informed, performance-based, and technology neutral. And I continue to believe that we need an Advanced Notice of Proposed Rulemaking to facilitate and begin the dialog in earnest.

Risk-informed and performance-based regulation is the right technical framework for new reactors, providing the necessary safety, stability, simplicity, and coherence. This framework should be supported by effective and efficient adjudicatory processes. Risk-informed regulation and efficient adjudication have been instrumental in recent NRC licensing processes, and especially so for power uprates and license renewals. Sound, well-founded, and documented risk-informed decision-making contributes to the clarity and efficiency of the due process required by adjudicatory issues, and will be needed for licensing new reactors by the NRC, if and when an application becomes reality. Many lessons have been learned from the last six years of more active implementation of risk-informed regulation; now is an opportune time to build on these lessons in moving forward.

Before leaving the subject of reactor safety and the proposed deployment of new reactors, I want to mention that, at several key conferences this last year, I have advocated that nations with common safety interests consider establishing an internationally acceptable framework for certifying reactor designs and safety analyses. While the licensing of reactors is the responsibility of each country, the safety of a reactor design is an international issue. By developing such a framework, we can substantially increase our ability to address safety and security matters in an international context and increase as well the acceptability of these reactor designs to nations around the world. Our Part 52 offers an excellent starting point for developing what I have called an International Design Certification process.

III Security

Security is a cutting-edge issue on everyone's mind, for obvious reasons, so let me address it directly. I believe that we have established, using a risk-informed approach, the key NRC requirements needed to provide added assurance of the security of civilian nuclear facilities and materials in the United States. We started early and progressed methodically. At the same time, many sister Federal agencies, especially DHS, have been engaged in bolstering homeland security and protecting the Nation's critical infrastructure. We have developed strong ties with these agencies, resulting in improved national capabilities. All of us have a common purpose -- to protect our country, its people, and its way of life -- and we are working more closely together than ever before.

We have heard, and continue to hear, some concerns about the progress that has been made in protecting the nuclear facilities and materials licensed by the NRC. That may in part reflect a lack of awareness of the full range of measures we have taken, and licensees have implemented since 9/11. At the risk of giving you information already familiar to many or most of you, let me review very quickly some of the protective upgrades that we have required and that our licensees have put in place.

Early in 2002, the Commission issued orders to all nuclear power plant licensees, requiring them to increase their defensive capabilities through such measures as tightening access controls, increased patrols, augmented security forces, increased vehicle standoff distances, improved coordination with the law enforcement and intelligence communities, and strengthened safety-related mitigation procedures and strategies. In January of 2003, we required a further tightening of access controls for nuclear power plants. A few months later, in April 2003, additional orders were issued that required, among other things, revisions to licensees' security plans, training and qualifications programs, and contingency plans for preparing against a supplemented design basis threat. Those revised plans were required to be submitted in April 2004 and implemented by October 29, 2004. By that date, the NRC had reviewed and approved all of our licensees' revised plans.

In short, we decided in favor of swift, aggressive action, and yes, we were criticized by some for moving too quickly at times, by issuing requirements by orders and not through rulemaking. Other times we were criticized for not moving quickly; ... "damned if you do, damned if you don't . . . " I'm confident that we did the right thing and we will continue to do the right thing. The NRC has demonstrated that it can act quickly in requiring safety and security measures if there is an urgent need. Now, however, we are at a point where we are seeking to make rulemaking processes again become the norm. The proposed DBT rule package is due to the Commission in June of this year, and the rest of the proposed rule requirements for power reactor security are due to the Commission in early 2006.

Our security efforts have extended beyond nuclear power reactors, across the range of our regulatory responsibilities, again in a risk-informed manner. For example, we have taken steps that deal with security at spent fuel pools at operating reactors, independent fuel storage facilities, decommissioned nuclear plants with spent fuel in their spent fuel pools, transportation of spent nuclear fuel, and high-risk radioactive sources.

It is appropriate for me to pause and discuss the safety of spent fuel pools. I am convinced that spent fuel pools are strong structures, not easily reached nor breached. They contain spent fuel with low residual heat, in an unpressurized, coolable geometry, amenable to many methods of cooling and other practical means of protection. We have ensured that the storage of spent fuel continues to be protective of public health and safety.

Our licensees have done what they needed to do, and I'm pleased to say that in many cases they have gone beyond the regulatory requirements. Moreover, NRC oversight has been, continues to be, and will go on being exacting and timely, requiring corrective action whenever needed.

Licensees have made significant improvement in their defensive capabilities, and concurrently we have made significant improvements in force-on-force exercises and evaluations. After conducting a post-9/11 pilot program, we recently implemented a full program of enhanced force-on-force exercises and evaluations. The NRC will oversee and evaluate approximately 22 force-on-force exercises each year, or about once at each site every three years – a substantial increase in frequency. In addition, the licensees run security exercises at quarterly and annual frequencies.

It may be asked whether it is likely that terrorists would *choose* to strike at a hardened target, such as a nuclear power plant. Be that as it may, the NRC has also conducted detailed, site-specific engineering studies of a number of typical nuclear plants to assess their capabilities to withstand an

attack using a commercial or general aviation aircraft as a weapon. Many other damage scenarios were addressed by licensees, as required by the 2002 and 2003 orders.

From the studies we have conducted to date, we believe that the likelihood is low that such a crash would damage the reactor core or the spent fuel pool and cause a release of radioactivity capable of affecting public health and safety. Moreover, mitigative strategies are available to protect the public in the unlikely event of a radiation release.

The NRC and its licensees are continuing to seek additional enhancements for the protection of public health and safety. Using what we have learned during the past three years, additional plant-specific studies are continuing. We are also monitoring and promoting the industry-wide use of lessons learned in strengthening mitigative capabilities of nuclear power plants. In addition, we continue to work closely with the Department of Homeland Security to coordinate on-site and off-site capabilities. The cumulative effect of all these developments is that America's nuclear facilities are more secure and better defended today, inside and out, than ever before.

Before I leave the issue of security, there is one more topic I need to discuss. The need for ensuring security against terrorism has created tension with one of this agency's most cherished principles, which is the desirability of openness on the subject of nuclear energy and its regulation. In the aftermath of 9/11, we took down the agency's website and scrubbed it for information that could reasonably be expected to be useful to a terrorist. In the end, about a thousand of some 800,000 documents were permanently removed from the website. In October of 2004, we suspended public access to parts of our website again, to review documents and remove them as appropriate. Access was mostly restored last month, but the process continues.

Did the public lose something when it lost access to those documents? Certainly. Curtailment of information represents some loss to the public. But equally, *release* of sensitive information can mean a loss to the public, and a much bigger one at that, if the release increases the danger that a terrorist will use that knowledge to do harm to the American people. I think it is clear that we should not knowingly provide road maps and blueprints to terrorists or cookbooks for creating mischief with nuclear materials. Some appear to believe that the only way to know whether the NRC is doing an adequate job of protecting nuclear power plants against armed assailants is to have nearly full disclosure of security requirements and capabilities. While I respect their opinion and their right to express their opinion, I can't agree with their conclusions. Overall, although not free from mistakes at the margins, the NRC continues to strive to achieve the proper balance between openness and information security, guided by the law and post-9/11 guidance.

IV. Preparedness

I'd like to touch briefly on the third subject of the safety, security and preparedness triad, the subject of emergency preparedness (EP) and emergency response. I believe that our basic approach is sound, and that a 10-mile Emergency Planning Zone (EPZ), with focused attention on 2 mile and 5 mile areas, continues to be appropriate. Within the NRC, EP for a long time was distributed among a variety of offices. We recognized the need for a more integrated organization and consolidated the emergency planning and emergency response functions under one umbrella.

Many other preparedness topics deserve mention. First, it should be clear to most of you that a major effort has been underway to incorporate security issues into planning and response activities, enabling modified Emergency Action Level definitions. Second, we have substantially increased our commitment to communications relating to emergency preparedness and response, particularly with state and local organizations. Third, we are investing the resources necessary to enhance NRC's response capabilities, including technical resources, training, and infrastructure improvements. I believe we are better prepared and more capable of responding to events and emergencies as a result of these efforts.

V Conclusion: The Continuing Challenges

In conclusion, we continue to be challenged by the need to excel in the management of safety and in the area of communications. One of our greatest continuing challenges lies in the area of integrating power plant security, and its many improvements, into the fabric of day-to-day operational safety and regulation. We also need to continue to enhance integration of our security-related interfaces with other agencies, at the Federal, state and local levels.

Whether we are addressing safety, security, or emergency preparedness, I believe that the NRC must continue to foster and strengthen, internally and externally, the means of achieving safety-focused policy, programs, and practices, directed by and with the ultimate goal of benefitting the people of America. As long as we continue to follow that path, there should be no slow down or wrong turn taken. Risk-informed and performance-based regulation is key to achieving the needed safety focus. In maintaining this course, and in making the right choices, there is stability and there is excellence.

And, to complete the circle, the nuclear industry needs to continue to foster and strengthen design, operational and safety maintenance, making the right choices, avoiding the pitfall of complacency or lack of safety focus. Our objective is to achieve stability – a dynamic stability – that assures that the right things are done by our licensees and by the NRC so that the public remains well protected.

Safe and secure operation of nuclear power makes a vital contribution to this country's energy mix. So long as licensees and regulators are committed to doing the right thing, I believe that nuclear energy will remain, as President Bush said in his State of the Union Address, both "safe and clean" and it will continue to serve this country well.

Thank you.