



# 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/OPA>

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**Chairman Nils J. Diaz**  
**U.S. Nuclear Regulatory Commission**

at the

**American Nuclear Society's Winter Meeting**

**November 15, 2004**  
**Washington, D.C.**

**LEADERSHIP TOWARD A PROGRESSIVE,  
INTEGRATED NUCLEAR COMMUNITY:  
GOING FORWARD TOGETHER**

Thank you. I am honored to be here with such a distinguished group of speakers. I appreciate the perspective Don Johnson just provided and I am personally looking forward to the interesting perspective that will be brought forward by my other fellow panelists. Personally, it is always a pleasure for me to participate in the American Nuclear Society meetings.

I will be presenting today my individual views, which do not necessarily represent the views of the Commission. I will limit my discussion to a regulatory perspective on, "Leadership Toward a Progressive, Integrated Nuclear Community." I will start with the bottom line: for the utilization of nuclear technology to advance to a new level of performance in the 21<sup>st</sup> century, nuclear regulation needs to be better, more predictable, more useable, more consistent across borders and more risk-informed. Using the theme of this conference, leadership by nuclear regulators should contribute to a progressive, more integrated nuclear regulatory community. In fact, nuclear regulation needs to be better managed to better serve individual countries as well as international needs. Nuclear regulation is a complex techno-legal construct that requires constant examination and management, even apart from sociopolitical issues.

At the NRC, our recently updated Strategic Plan for Fiscal Years 2004-2009 includes the agency's strategic objective of enabling the use and management of radioactive materials and

nuclear fuels for beneficial civilian purposes in a manner that protects public health and safety and the environment, promotes the security of our nation, and provides for regulatory actions that are open, effective, efficient, realistic, and timely. That is quite a mouthful, but I believe it embodies what we as regulators have been doing and are committed to continue to do in the 21<sup>st</sup> century. The revised NRC strategic plan is based on five goals: safety, security, openness, effectiveness and management. I have frequently emphasized safety, security, openness and effectiveness. Today, I want to focus on the role that excellence in management, specifically with regard to the management of nuclear licensing and regulation, plays in the management of safety.

The NRC strives for management excellence in carrying out all of its regulatory responsibilities. This goal includes strategies for the management of safety, human capital, financial performance, expanded electronic government, budget and performance integration, and external and internal communications. Key attributes of excellence in management are enhanced accountability, connectivity, communications and timeliness. In this regard, the regulator/licensee interface is key to the management of safety, and therefore, requires excellence in management by both the regulator and the industry.

At this point, I will venture to say that there are more striking differences in the global regulation of nuclear power than in the technology and operation of the nuclear power plants themselves. I value the distinct contribution that each nuclear regulator makes to safety within each country's framework; however, I believe that more convergence on the regulatory framework and its tools would enhance predictability and decisionmaking. Going forward, four key areas requiring expertise and excellence in regulatory management, and which contain elements amenable to international collaboration, are: license renewal (also called plant life extension or periodic safety review), power uprates, unplanned extended shutdowns, and new reactor design certification. On the first two, I believe most everyone will agree that the nuclear power plant license renewals and power uprates which satisfy safety requirements contribute to the energy supply, economic stability and well-being of nations. For this purpose the improvement of regulatory programs and tools for both license renewals and power uprates are amenable to bilateral or even multilateral exchanges. The third key issue I mentioned was unplanned extended shutdowns. I gave a talk earlier this month at the Institute of Nuclear Power Operations (INPO) Chief Executive Officer (CEO) meeting on the issue of management of extended shutdowns. This is also a very important issue, for which the management of the regulator/industry interface and many of the regulatory treatment options is amenable to integrated international analysis, aiding each country's decision making. For more information on this topic, you can find this talk at the NRC web site at [www.nrc.gov](http://www.nrc.gov).

I have frequently expressed my conviction that national licensing and regulatory authorities should remain strong and fully responsible for making their countries' regulatory decisions; however, there are key parts of regulations that are amenable to "internationalization." I believe that safety will be better served when certified designs can be accepted across borders as a commodity, fully respecting property rights and the licensing responsibility of regulatory authorities. Therefore, I am convinced that regulators should seek to develop the tools needed to certify new reactor designs, as well as to certify the related research programs used to validate these designs, using bilateral or multilateral agreements. The bottom line is that safety and regulatory decisions would be facilitated globally.

For example, design certifications completed by the NRC can be reviewed and adopted by other regulators thereby utilizing a broad range of expertise, research results and other resources. For future design certification efforts, international regulators can, at the front end, join the projects and

participate in the efforts for both the safety reviews and the related technical and research activities that support the certification. The concept of consortia for these applications might sound strange, but it should become a 21<sup>st</sup> century reality. I am not advocating international licensing; licensing should remain each country's responsibility. I am advocating certifying reactor designs in a manner that should greatly enhance the regulator's management - in each country - of the relevant licensing and regulatory activities. A more detailed discussion of this topic is included in my remarks at the 2004 Nuclear Safety Research Conference (it can also be found on the NRC web site at [www.nrc.gov](http://www.nrc.gov)).

Let me summarize my thoughts. Regulators are required by their countries to demonstrate excellence in the management of safety and there is much to be done to better share experiences, regulatory programs and tools, including design certification, across borders. I see opportunities for enhanced international cooperation among regulators to articulate and document regulatory decisions that are technical in nature. I see significant opportunities for improved connectivity among the regulators to ensure that different regulatory initiatives complement each other, minimizing duplication of effort. I see significant opportunities in improving communications among regulators by sharing expertise, know-how, analytical capabilities, as well as data generated from research efforts to permit greater consistency worldwide. I see opportunity for improvement in the area of timeliness as well, so safety issues can be promptly identified and resolved. We are entrusted with the responsibility to ensure safety in discharging our licensing and regulatory responsibilities; we are all in a path to do it better because we know better.

In conclusion, the future contribution of nuclear power generation to the global energy mix and to environmental stewardship depends on a variety of factors. The global regulatory environment is one of the significant factors affecting nuclear power in the 21<sup>st</sup> century. It is clear to me that regulatory activities need to keep pace with the changes in the nuclear industry and that regulations need to be maintained in step with the technological developments of the 21<sup>st</sup> century. There is no doubt that the nuclear industry will be profoundly influenced by international regulatory developments and we must be ready to effectively manage them.