



# NRC NEWS

**U. S. NUCLEAR REGULATORY COMMISSION**

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## **Looking Realistically at Energy Security: The Regulatory Perspective**

**Remarks of Chairman Nils J. Diaz  
United States Nuclear Regulatory Commission**

**before the**

**Nuclear Energy Assembly  
Santa Monica, California  
May 21, 2003**

It is a privilege to be here this morning to participate in the 2003 Nuclear Energy Assembly, celebrating many meaningful 50<sup>th</sup> anniversaries, including probably some kind of 50<sup>th</sup> anniversary of Joe Colvin. Joe, thank you for inviting me, congratulations on a great meeting.

I want to recognize that Commissioner Merrifield is here. Commissioner Merrifield brings tremendous value to the Commission.

As many have said before me, much has been accomplished in these 50 years, but much remains to be done, as the industry looks to a renaissance of nuclear power in this country and abroad.

This annual Nuclear Energy Assembly has always been valuable as an occasion for stocktaking, and reflecting on recent experience, and at the same time for looking forward to the issues confronting the industry and its regulators in the coming months and years. This year, the looking forward side of it is especially important, because so many factors augur positively for the nuclear option. The operating fleet is committing to license renewal and power upgrades, a commitment that among many benefits maintains the nuclear power infrastructure of suppliers and services. Also, an open national debate on new power plants has begun.

The title of this session, “Energy Security and Environmental Stewardship,” was aptly chosen. Security, as applied to nuclear energy, has a double meaning. The country is concerned, and appropriately so, with ensuring the security of the critical infrastructure facilities against malevolent or hostile action. Though this issue has received heightened attention in the past two years, it is by no means a new one for the NRC or the nuclear industry. Literally decades ahead of other sectors of this nation’s civilian infrastructure, this industry and its regulators have proceeded on the assumption that terrorism and sabotage were real threats, requiring adequate preparedness. Nuclear security, as a subset of nuclear safety, has been part and parcel of our operations from the early days of the NRC.

Energy security has a second meaning, as I need hardly tell this audience, and that is the need to ensure that this nation has a steady, dependable, safe, and abundant supply of energy. In the modern world, energy is the lifeblood of the nation, and those who imagine otherwise are deluding themselves. Mr. Rhodes eloquently made this point yesterday. Energy security, economic security, and national security in the traditional sense are bound together in a seamless web, and we cannot ignore our long-term energy needs without also imperiling other aspects of our security. Again, I believe that James Schlesinger made this point clear in his comments.

The phrase “environmental stewardship” refers to another value that is reflected in our obligation to take the long view. We need to bequeath our children and grandchildren not only a country that is secure, economically and otherwise, but also livable, where energy sufficiency goes hand in hand with environmental preservation. Energy security is vital to the United States of America, and nuclear energy is a vital component of energy security and of environmental stewardship. Nuclear power generation has served as an anchor of the U.S. electric power grid, and it has done so safely and securely, year after year.

Before I deal with the key issues on our plate, I would like to offer some more general observations on the relationship of the regulators, the industry, and the public. This audience knows, better than most, that the NRC’s role, of course, is not to promote the nuclear industry but to regulate it. But that does not mean indifference to whether the regulated industry achieves its objectives. On the contrary, the purpose of regulation should be to allow the regulated industry to accomplish its goals with only as much of a burden as is necessary, consistent with the central and overriding obligation to ensure the public health and safety and the other goals established by law.

I stress “necessary” burden because eventually the public pays for it. Over-regulation does not benefit the American people, it harms them, because it means they are paying for something that confers no value on them in return. Nowhere is this clearer than in the case of an agency like the NRC, which operates on the basis of almost 100% fee recovery. The money that we require licensees to spend, and that we spend ourselves, comes overwhelmingly from the ratepayers, and we as regulators can not afford to lose sight of that fact. This is also stewardship, for we are working on behalf of the American people, and if we are doing our job right, we are spending no more of their money than we have to.

The key, of course, is knowing where to draw the line between sufficiency and excess. This is applicable across the board, but it is presently particularly important to policy-making. When policy is based on technical analysis, this line separates good policies from bad policies. In a recent talk at the NRC's Regulatory Information Conference, I described my own approach, of what I call "realistic conservatism." The NRC has traditionally been long on conservatism; what has been lacking, too often, is the essential qualifier, that it also be "realistic." In the early days of nuclear power, when our experience base was still slim, that was certainly understandable. Not only did we employ conservatism – and rightly so, like the defense-in-depth concept – we also relied on what were sometimes highly improbable worst-case assumptions. Worst-case assumptions could be usable for preliminary estimates of the importance of an issue, but they are not a good basis for policy or decision-making, and are especially bad when addressing consequences. We now recognize that we have the knowhow and operational experience, aided by risk-informed insights, to develop the quantitative tools of a regulatory framework based on realism, as well as realistic consequence analysis. I expect that we will soon move forward to ever greater use of performance-based regulation, since the real objectives are outcomes and not the check-lists.

In every respect, our policies need to be grounded in realism. Where events are well understood and well managed, we should treat them accordingly: not as a crisis, or an occasion for hand-wringing, but as part of the process of operating a complex technology. By the same token, extremely low probability events, which have never happened and are unlikely ever to happen, should not be driving policy.

These are the directions in which I believe we should be moving: away from prescriptive regulation, toward greater realism. In other words, we need to move beyond prescriptive rules, both in the substance of how we regulate and in how we communicate with the public. Compliance, as in checking the box, doesn't equate to safety. All of us involved with nuclear energy need to think in terms of the safety and risk of an issue rather than having "check-the-box" thinking. It is just not good enough. This applies equally to the industry and the NRC. This is also consistent with my long-held philosophy that it is not enough just to *find* the problem, you have to *solve* the problem. I am in favor of creating strong incentives for self-criticism, self-identification of problems, and self-correction of deficiencies. This carries with it an obligation to communicate effectively what we are doing and why; we should do a lot better in this area.

The Commission's plate today includes a series of hot issues, issues that have to be dealt with effectively and expeditiously. There are, of course, materials degradation issues and other important emerging issues. Today, I will first touch on nuclear security, emergency preparedness, and budget issues of importance to this assembly.

As you know, just in the past few weeks, the NRC has approved changes to the Design Basis Threat and revisions in the requirements for work hours, training, and qualification of security personnel. We have issued appropriate orders to all commercial nuclear power plants

and Category 1 fuel facilities. The regulatory base for these orders are the common defense and security and its strong association with public health and safety. This is intended to bring closure to an area that has been in flux too long. I believe that there is reason for confidence that we are now where we should be on issues of physical security. With the inherent robustness of the plants themselves, the revised DBT, improved training and work hours requirements for security personnel, and enhanced access authorization controls, we have now established a security construct responsive to the protection needs of the plants. We have a very strong story to tell to the Congress, the American people, including our detractors, and our international counterparts. The Commission believes that this DBT represents the largest reasonable threat against which a regulated private security force should be expected to defend under existing law. The Commission has made it very clear that so called "fatigue orders" are exclusively for the guard force and that no carryover will be allowed into other personnel working at the plants.

I look forward to a period of regulatory stability that will allow efficient implementation of these measures. The Commission is very concerned with effective implementation, one that allows our licenses to do what is required and to do it well. We know there will be times when enforcement discretion will be needed during transitions, and we are prepared to address your requests, especially in the guards working hours issue. Above all, the American people can be reassured that the nation's nuclear plants are well-secured against potential threats, and that the NRC, the Department of Homeland Security, other Federal agencies, and state and local law enforcement will continue to work closely together and with our licensees to ensure an integrated, coordinated system of protection. As the Commission stated, the steps we have ordered are *appropriate, practical, and implementable*. We are working closely with the Congress on legislation impacting nuclear security, and communicating the extensive security upgrades that have been, and are being, implemented.

Emergency preparedness, like security, has become a post-9/11 area of concern. The Commission believes that large and rapidly developing accident scenarios are covered by the extensive emergency preparedness plans in place prior to 9/11, and that the significant improvements in security, plant mitigation strategies, and in emergency plans and off-site communications are all contributors to robust and enhanced protective measures for our population. However, we continue to work aggressively with FEMA and stakeholders to ensure that the right plans are in place, and that the right messages are conveyed to the Congress and the public. We are dedicating resources to ensure that all the important issues are addressed.

The Commission is also aware that costs increased sharply for most licensees for the current fee assessment year. Most of these increased costs are mandated or due to increased security; the Commission unanimously requested General Funds appropriations for the increases in security-related costs but was not successful. We are going to try again. I am sure you are aware that there are several factors that could also weigh heavily on the oncoming budget increases, including the rate of incoming license renewal applications and the very diverse set of new reactor designs. The input from stakeholders on this and other relevant issues is important as we continue to balance the workload against the need for reasonable budgets. The

Commission wants to ensure that all important issues are completed in a timely manner, and this might require some prioritization.

I must emphasize that the attention we have given, appropriately, to security issues has not diverted us from our continuing focus on such key areas as early site review, license renewal, and power uprates. We are also ensuring our readiness to deal with any applications for new plants.

Furthermore, the agency continues to work on the important and everyday issues, without disruption, and in many cases in a very interactive manner. We appreciate the significant input we receive from stakeholders in a large variety of issues.

In the area of early site review, the NRC has been taking vigorous action to ensure that we are prepared to hit the ground running whenever an application is submitted. We have a process in place, ready to go; it's up to the licensees to decide whether to avail themselves of it, but I can assure you that, if and when they do, the NRC will do its regulatory job, efficiently and well.

Our license renewal process now takes approximately 22 months, unless there is a hearing. To date, 16 license renewals have been approved, and 14 more are being processed. The NRC continues to look for efficiencies and for improvements in scheduling the work in an optimized manner.

As to power uprates, the NRC has now completed over 94 reviews for a total of approximately 4050 MWe. As you know, that is the equivalent of more than three new large nuclear power plants -- a very substantial addition to our nation's energy supply, and energy security. The staff estimates that licensees will be submitting an additional 35 power uprate requests in the next five years, resulting in adding nearly 2270 MWe to the grid. Again, this area receives our continuing attention. Our activities in the area of license renewal and power uprates don't get a great deal of public attention, but I believe that they have resulted in substantial benefits for the American people. In both cases, they mean that this country obtains additional energy supplies without compromising safety or environmental protection. They continue to be an extremely high priority for the NRC.

As to new plants, there may well be significant opportunities for this country's nuclear power industry at this time, through a confluence of technical, economic, and political factors. The NRC, through Part 52 of its regulations and proposed revisions, is helping to ensure that the regulatory framework is in place to support the deployment of new reactors. The NRC has already a proven process for the review and approval of advanced reactor designs. In addition, the staff has now issued Revision 3 to the Advanced Reactor Research Infrastructure Assessment, to assist the regulatory framework for processing Advanced Reactor certification.

Congress is considering national energy policy as we speak. The President and Vice President have made clear their belief that nuclear power should play an expanding role in this country's energy portfolio. The Commission continues to interact with Congress on regulatory issues as they arise.

In sum, I see a convergence of positive factors in the nuclear area. I see progress and stability in the area of safety and security; progress in establishing the groundwork for new plant construction; progress in moving toward performance-based and risk-informed regulation; progress in communicating our message to the American people.

The NRC's job of regulation requires thoroughness, toughness, a willingness to set priorities, and the readiness to move forward expeditiously, as the nation needs. Regulation, in my view, is much more than a set of "don'ts": it is and should be a *positive* force, a pathway both to helping the industry accomplish its goals, and to achieving a better, safer, and more secure existence for the American people. Part of being a positive force means a willingness to take the initiative and press ahead to resolve issues. We are prepared to do our best. I look forward to working with the industry and all other stakeholders to further these objectives, for the benefit of all Americans.

Thank you.