



NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION

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**“A View From The Nuclear Regulatory Commission”
Prepared Remarks for
The Honorable Gregory B. Jaczko
Chairman
U.S. Nuclear Regulatory Commission
at the
EnergyBiz Leadership Forum
Washington, DC
March 1, 2010**

Good afternoon. I appreciate the opportunity to address the conference today. This event focuses on many important energy issues – issues that are complex, challenging, and that cut across all levels of government and many parts of the private sector. I believe that forums like this one play a significant role in maintaining a substantive dialogue about these important matters.

I understand that the conference will consider the role that various energy technologies, including nuclear power, might play in our nation’s evolving energy paradigm. Many of the issues that you will discuss fall outside my role as an independent nuclear safety regulator. As I always do at these events, I have to issue my standard disclaimer – that it is not the role of the Nuclear Regulatory Commission (NRC) to promote or discourage the use of nuclear power. The future of nuclear power – whether it expands or contracts – is ultimately one for the public to determine through the actions of the public and private sector, the Administration, and the Congress.

The interest in nuclear power has increased significantly in recent years. There is no doubt about that. Just 15 years ago – not that long ago – decommissioning aging facilities seemed far more likely to command greater attention from the agency. A decade ago, I doubt many people inside or outside the NRC would have foreseen any significant increase in new reactor applications. Even five years ago, the outlook for new applications remained uncertain. I can recall shortly after I was appointed to the Commission, in 2005, the agency staff discussing with me the possibility of just one or two new reactor applications. Today, we are reviewing 13 applications for 22 new reactors. Once this flood of applications became a realistic possibility, the NRC prepared itself to ensure that any potential new plants would be licensed and constructed in line with our high safety, security, and environmental standards.

In thinking about the potential for new nuclear power plants, I think that it's very important that we really learn the lessons from our past experience. Albert Einstein went so far as to say that "our only source of knowledge is experience." The NRC has over 35 years of experience in licensing and regulating nuclear plants to protect public safety, security, and the environment. The agency has a wealth of experience to draw upon to continue meeting our vital safety, security, and environmental missions with regard to new plants. That source should not go untapped.

I recently passed my five-year anniversary on the Commission. Almost half of the NRC's current workforce actually has been at the agency for less time than I have. That reflects the dramatic changes that the NRC has experienced in recent years. The renewed interest in nuclear power has substantially increased our licensing and regulatory workload, and has required the agency to grow significantly in size. When I first joined the Commission, the NRC had a smaller staff, a much smaller budget, and our headquarters consisted of two buildings. Since then, the number of NRC employees has grown by 25 percent, the size of our budget has grown by more than 50 percent, two new offices have been created, and we are now planning the construction of a new office building to accommodate our growth.

I am sure that many of you – as executives and managers of large organizations – will appreciate the fact that such rapid growth inevitably presents both opportunities and challenges. It reminds me of something Winston Churchill once said: "A pessimist sees the difficulty in every opportunity; an optimist sees the opportunity in every difficulty." At the NRC, we are focused on seeing the opportunities in the challenges that have been presented by these dramatic changes. We are committed to take full advantage of the talents and fresh perspectives of the new staff while never forgetting the lessons learned from the past.

The agency has sought to accomplish this in a number of ways. We have launched several knowledge management initiatives at the agency to preserve the institutional knowledge that we have developed over the last 35 years. We also have been working hard over the last few years to update our guidance documents and standard review plans. As long-serving staff retire, it is critical to have written documentation so that we are always performing our safety, security, and environmental work as effectively as possible. Our staff has done a lot of good work in this area. We have updated all of the agency's regulatory guides needed to support our applicants' new reactor licensing efforts, and made a good deal of progress in other areas as well. There do, however, remain many regulatory guides that are not yet completed. It's more important than ever that the agency sees these efforts through to completion. It will help the agency better protect public safety, security, and the environment.

I'll share with you one example from the policy area where I think the Commission used our past experience with the existing reactor fleet to help enhance the safety and security of possible new plants. It concerns the threat of aircraft impacts after 9/11. I believe that the Commission has resolved the issues that the aircraft threat raised for existing reactors through mitigative strategies – measures that licensees could take to reduce the potential consequences of a large fire or explosion. That was sufficient to meet our high standards for protection of public safety, but there was no reason that we could not do better in the future. Therefore, the Commission acted last year to ensure that any new potential plants focus on design

improvements rather than mitigative strategies to provide an even higher level of protection against aircraft impacts.

There, however, have been areas where we have not fully learned the lessons from the past. I'll discuss a couple of those. First, I believe that it's clear from our past experience that one of the greatest missed opportunities with our current fleet of reactors was the failure to standardize around a limited number of designs. We currently have 104 operating nuclear reactors in the United States, and we have approximately 104 unique nuclear reactors in the United States. That is not an efficient approach from a regulatory standpoint or an operational standpoint.

We have approximately five different designs in the pool of new reactor applications before the agency. At one point, that number was closer to three. I think that would be a more manageable number. It would provide a diversity of supply without providing an unnecessary and inefficient number of reactor designs to potentially license and regulate. But this is not ultimately up to the agency. It is a decision for vendors and utilities to make. Regardless of the number of designs that are submitted for review, the NRC always will always meet its mission of protecting public safety, security, and the environment in reviewing new applications.

Another area that I will highlight is that – no matter how many designs are put forward by applicants – our past licensing experience shows the importance of having completed designs submitted by applicants as early in the process as possible. The Commission significantly reformed its licensing process based on our past experience – so much so, in fact, that we flipped the application process from 'build first and then license,' to a 'license first and then build' approach. The old process was something along the lines of building an addition to your house before having the zoning permit approved. Since the cost of preparing a license application is dramatically less than actually pouring concrete and constructing the facility, the current process has taken some of the financial uncertainty out of the decision to build a plant. Unfortunately, applicants have not used this process as the Commission had envisioned.

The agency always understood that the early submission of completed designs would be the key to success under the new process. The Commission had hoped that applicants would then proceed through the various other steps of the application process. Such an approach would put the agency in a position to review the applications as efficiently and thoroughly as possible. Almost no one is following that ideal process. Instead, we are now again in a situation where applicants submit incomplete designs and less than high-quality applications for review. This is certainly allowed under our regulations, but I do not believe it is the most efficient or predictable path forward.

The very first application that the agency received was on hold for a year and a half during which time we could only do minimal work on it. Even today, more than a quarter of all the licensing applications we have received – 5 out of the 18 – are on hold at the request of the applicants. The temptation is to plow on anyway and conclude that if plants got licensed in the 1960s and 1970s under less than ideal conditions, it won't be the end of the world if the current process begins to look more and more like that one. Again, the decision ultimately rests

with the applicants – not the agency. But I believe that everyone would be better served by focusing on the lesson of those plants that never got built and concentrating on getting designs completed first to ensure that review process proceeds smoothly.

Our past experience can tell us all a great deal about how best to move forward in the future. As Chairman, I am committed to ensuring that the NRC never forgets the lessons it has learned throughout its history but also always remains open to fresh ideas and fresh perspectives.

Again, thank you for providing the opportunity to address the conference.