



NRC NEWS

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“Regulation and the Future of Nuclear Science and Technology”

Prepared Remarks for

The Honorable Gregory B. Jaczko

Chairman

U.S. Nuclear Regulatory Commission

at the

American Nuclear Society Annual Meeting

San Diego, CA

June 14, 2010

Thank you. I appreciate the opportunity to address the American Nuclear Society’s annual meeting. In glancing at your agenda, it’s clear that you have a very busy week ahead of you. Few venues afford the kind of opportunity you have to discuss such a broad range of technical and regulatory issues. These discussions will contribute a great deal to support our national debate about the future of nuclear power and its safety, security, and environmental implications.

The theme of your conference is “Nuclear Science and Technology – The Right Fit. The Right Time.” In my regulatory role, it is not my place to weigh in on whether or not nuclear power is the right answer to climate change or the right fit for our nation’s evolving energy paradigm. Those questions are for the public to decide through the actions of the public and private sector, the Administration, and the Congress. As Chairman of the NRC, it is my role – regardless of whether nuclear power expands or contracts – to ensure that nuclear industry is regulated in the right way to protect public health and safety.

During my remarks today, I will discuss a few areas that I believe are critical in order for the NRC to remain an effective regulator: a full understanding and focus on all aspects of our mission – both what we regulate and for what purposes – and how maintaining the NRC’s independence, learning from our past experience, and building public confidence helps us advance that mission.

First, it is critical that the agency maintain the right understanding of our mission. Our stakeholders and the public can take an interest in one or another aspect of our work, but we have the responsibility to ensure that the appropriate focus remains on all aspects of our work. To fully appreciate how broad our responsibilities are, we need look no further than our mission statement. That concise and powerful statement requires us to “license and regulate the Nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, promote the common defense and security, and protect the environment.”

I think that our mission statement might surprise some, not because of what it says but because of what it does not mention – the words “nuclear power” or “reactor.” Reactor licensing and oversight are absolutely central to what we do. And it is certainly the most visible aspect of our work to much of the public and many of our stakeholders. But it is not all that we do. Our mission statement makes that clear. Its focus on the regulation of materials should serve as a constant reminder of our critical work in regulating the entire fuel cycle and thousands of materials licensees that use materials for medical, industrial, commercial, and research purposes.

We received an important reminder of this just last month during the Commission’s briefing on our annual evaluation of licensee performance. Only two licensees – both materials licensees, a medical licensee and a fuel fabrication facility – warranted discussion at the meeting for performance problems.

The case of the medical licensee was a stark reminder of the fact that most instances in which individuals have suffered harmful exposure to nuclear materials have not occurred at reactors but rather at medical and other materials licensees. This is a challenging oversight area. The thousands of materials licensees that we regulate present different challenges and require that the NRC develop and sustain a diverse array of regulatory capabilities to conduct effective oversight.

And the case of the fuel fabrication facility highlights the importance of the Commission’s ongoing work in reassessing our oversight programs for fuel cycle facilities. Right now, the Commission is considering whether to develop an approach more closely aligned with the Reactor Oversight Process’s risk-informed, performance-based approach. Although there is no one-size-fits-all approach, I believe that there are valuable lessons to be learned from our past experience with the ROP on how to make our fuel cycle oversight process more transparent and predictable.

In order to remain an effective regulator, I think it is no less imperative that the agency remain focused on why we regulate – on the objectives we seek to advance in regulating the entities that we do. Again, our mission statement provides clear guidance by establishing the three components of our mission: safety, security, and the environment. Much of the common understanding of the NRC’s regulatory work revolves around our safety function regarding reactors. That is tremendously important. But in order for the NRC to remain an effective regulator, the NRC must continue to advance the security and environmental components of our mission as well.

In the security area, that fundamentally means remaining alert to the dynamic threat environment. In response to our better understanding of the threat environment after 9/11, the Commission implemented significant changes to our security requirements. There is no question that these new requirements strengthened the security of nuclear plants and materials. But we have to resist the temptation to think that we have done enough, to be lulled into a sense of complacency based on the security gains that we have made in recent years. The threat environment remains dynamic. And so must our regulatory response. The cyber threat, in particular, is one that evolves quickly, and one that will grow in importance, as operating reactors and potential new reactors increasingly deploy digital instrumentation. This is exactly the kind of emerging issue that the NRC needs to be out in front of.

The third area I want to highlight that I see as central to the agency’ effectiveness is its independence. It can be difficult to define independence in specific, concrete terms, and the means by which governments promote independence can differ widely, depending on the regulatory context and the political system. I believe that Congress has effectively established the NRC’s independence by dividing the functions of promoting and regulating nuclear power between the Department of Energy and the NRC, respectively. That was not always the case – the original Atomic Energy Commission, which oversaw the early development of nuclear power, maintained a dual mandate. That proved problematic, and ultimately led the Congress to dissolve the Atomic Energy Commission and create the NRC as an independent federal agency.

The NRC’s independence is a key source of strength. It should give the public, policymakers, and other stakeholders confidence that the agency will approach its work without bias and with sound judgment. That is one reason that calls to impose statutorily binding schedules on the licensing reviews by the NRC have not been heeded. Throughout its history, the agency has been committed to ensuring thorough and timely reviews of all license applications. We are very mindful of our responsibility to make the best use of our resources and advance our work as efficiently as possible. But arbitrary schedules would shackle our seasoned and experienced staff and impair their ability to structure the safety reviews in the most effective and efficient manner possible.

In addition to maintaining the NRC's independence, I also believe the agency's vast experience and the lessons we've learned from that experience are invaluable in advancing our mission. For the last thirty-five years, the NRC has regulated the largest commercial nuclear industry in the world. That experience is a tremendous resource, and one that has repeatedly helped us to do our job better. In recent years, you need look no further than the changes we instituted after Davis Besse and Peach Bottom to see how hard the agency works to learn from its past experience.

But even more so than these kinds of incremental changes, I believe that the most fundamental lesson we have learned from our past experience – and one that we can never forget – is that we must never get complacent. We must never settle for old approaches when new ones might be better. We must never allow ourselves to think just because something hasn't happened yet that it won't happen in the future. As Mark Twain once said, "It ain't what you don't know that gets you into trouble. It's what you know for sure that just ain't so." That has some resonance for our history with nuclear power – neither the Three Mile Island incident nor Davis Besse degradation was thought to be probable, or significant, until the very moment when they happened.

I spoke at an industry conference last month. Industry leaders there took great pride in their performance – in terms of both increasing power capacity and promoting safety at their plants. I agree that much progress has been made over the years in enhancing nuclear safety and security. But if we've learned anything from our history of nuclear power – and recent events in other sectors – it should be to have a constant awareness of the risks of complacency...the inattentiveness and carelessness that can compromise public health and safety.

Finally, the last point I would like to address is public confidence. The NRC has a responsibility to involve the public in its decision making and build public confidence that the agency's licensing and oversight programs are protecting public health, safety, and the environment. In fact, the NRC's authorizing statute requires the agency to provide the opportunity for public participation in virtually every licensing action we take. This is a tremendous responsibility. But it is also an important opportunity for the agency to engage the public and demonstrate the skills and dedication with which the NRC approaches its work. The level of public confidence in the agency can serve as a barometer of whether we are meeting our mission, as well as how effectively we are engaging the public. I am sensitive to the fact that few civilian technologies – if any – have the ability of nuclear energy to attract public attention and elicit public concerns. That is why openness and transparency have always been core organizational values for the NRC and why building public confidence in the agency will always be a priority of mine during my tenure as Chairman of the Commission.

Over the last few years, the NRC's regulatory environment has been highly dynamic. There appears to be no reason to think that it will suddenly become static. New safety and security issues are emerging – digital instrumentation and the cyber threat are just two examples. New reactors and fuel cycle facilities are currently under review and may enter construction or operation in the near future. And some old issues – like fire protection and sump performance – will still require our focus and attention.

We have a great deal of work in front of us, but we also have a talented and dedicated NRC staff behind us. If we stay focused on our mission, maintain our independence, learn from our experience, and build public confidence, the NRC will remain a strong and effective regulator no matter what issues emerge and what challenges arise.

You and others will decide whether it is the right fit or the right time for nuclear technology. Regardless of what the future holds for nuclear power, the NRC will be ready to make sure that that we take the right approach in moving forward – one that protects public health, safety, and the environment.