



NRC NEWS

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“Nuclear Regulation in Dynamic Times”

Prepared Remarks for

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The Energy Security Initiative

The Brookings Institution

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Thank you for the introduction. I appreciate the opportunity to address one of the nation’s leading research and public policy organizations. It’s been a little more than a year since I last spoke at a think tank. While speaking at the Heritage Foundation in July of 2009, I recall being told – and I suppose in some sense was comforted to hear – that they thought commercial nuclear power was perhaps one of the few areas of domestic policy where they saw a clear need for strong federal regulation.

In my remarks today, I am going to take advantage of your academic orientation as a think tank, and allow myself to act a little bit like a professor. I’d like to trace some history for you and share some observations about our regulatory roots and evolution.

The need for – and the best methods to ensure – effective federal regulation have been topics of increased interest for policymakers of late, given the significant incidents that several different industries have experienced in recent years. They are all too familiar – the BP oil spill, the West Virginia mining disaster, and of course, the financial crisis. Just as those disasters have caused those industries and their regulators to examine their past practices and focus on the best way to move forward, the nuclear industry and the Nuclear Regulatory Commission experienced its own seminal event – the Three Mile Island accident.

In examining the events leading up to the worst accident in the history of the U.S. nuclear industry, the Administration and the Congress recognized that (1) the NRC’s regulatory failures had contributed to the accident and (2) that those failures were deeply rooted in the agency’s institutional dysfunctions. Identifying fundamental organizational weaknesses, the Administration and Congress then established by law a clearly defined management structure for

the agency. Under their 1980 Reorganization of the NRC, the Commissioners were given the collective responsibility for developing policy and the Chairman the sole responsibility for management of the agency. I recognize the trust that the Congress has placed in my office and the tremendous importance of effectively exercising that authority to fulfill the NRC's public health and safety mission.

By providing a clearly defined management and policymaking structure, the Reorganization sought two goals: 1) to ensure the Commission's focus on important policymaking, rulemaking, and adjudicatory issues and 2) to provide the Chairman with the necessary authority to effectively implement the Commission's decisions. With three decades of experience, it is clear that Congress achieved both its aims. In the years immediately following the Three Mile Island accident, significant changes fundamentally reshaped how the industry operates and how the NRC regulates. These changes included:

- An overhaul of our emergency management approach.
- The identification of human performance as critical to plant safety.
- The consequent revamping of operator training and staffing requirements.
- A significant expansion of the agency's resident inspector program.
- A shift towards a more risk-informed regulatory approach.

Those changes led to important improvements in plant safety, and, in large part, reflected the hard work of a Commission and agency staff reinvigorated by the institutional reforms. With Commissioners tackling a litany of important policy issues and the Chairman working with talented and dedicated NRC staff to effectively implement them, the NRC had entered a new era of heightened effectiveness.

Today, my fellow Commissioners and I are committed to addressing the many challenges posed by the NRC's dynamic regulatory environment. Over the past several months, the Commission has been working productively through many significant policy issues. Two key accomplishments include a comprehensive update of the Enforcement Policy and the Waste Confidence Rule.

The NRC's Enforcement Policy is a crucial tool in our mission to protect public health and safety. Through the Enforcement Policy, the Commission ensures compliance with NRC regulatory requirements, as well as the prompt identification and correction of violations. In the first major revision since 1995, the Commission updated the Policy to reflect the NRC's Reactor Oversight Process and the use of Alternative Dispute Resolution. The current revision will ensure the Enforcement Policy closely parallels agency practice, and will incorporate enforcement issues associated with combined licenses for proposed new reactors, the construction phase of proposed fuel facilities, and new requirements related to safeguards and security.

Through its updated Waste Confidence Rule, the Commission affirmed our confidence that spent nuclear fuel can be stored safely and securely without significant environmental impacts for at least 60 years after operation at any nuclear power plant. The Commission also directed the NRC staff to conduct additional analysis for longer-term storage to ensure that we

remain fully informed by current circumstances and scientific knowledge relating to spent fuel storage and disposal. The Commission made clear that the revisions of the waste confidence findings and rule are not intended to signal an endorsement of indefinite storage of spent fuel at reactor sites.

In addition to these efforts, the Commission took steps to enhance the Fuel Cycle Oversight Process, moved forward with several important rulemakings, and helped complete the 2010 interagency Radiation Source Protection and Security Task Force Report.

With a productive summer behind us, the Commission is now moving forward to build on this progress. During the remainder of my remarks today, I would like to share with you some thoughts on several major policy issues that likely will be before the Commission in the next few months.

The first concerns mandatory hearings for the new reactors applications. Right now, the agency is actively reviewing 13 applications for 22 new reactors after placing the reviews of five applications on hold at the request of the applicants. Just a few years ago, few people anticipated this high level of interest in new reactor construction. After the dramatic slowdown in new reactor orders during the 1970s, it has been nearly 15 years since the last new reactor entered operation. Even as recently as 2005, when I first joined the Commission, discussions around the agency generally revolved around the future possibility of one or two new reactors.

As the staff completes final safety and environmental reviews, these new reactor applications will entail significant additional responsibilities for the Commission. In 2007, the Commission committed itself to conducting mandatory hearings associated with new reactor applications, rather than to continue to have the Licensing Boards perform this function.

This will be the first time that the Commission conducts these hearings, which are required by the Atomic Energy Act. They are likely to command a great deal of attention from the public, policymakers, and stakeholders. It's critical that they be conducted openly and efficiently. They also should appropriately focus on the most significant safety, security and environmental matters relating to the application, allowing the Commission to serve as a check on the staff's work but without needlessly replicating work or unnecessarily introducing delays into our licensing process. Since this will be the first occasion that the Commission conducts the hearings itself, the Commission will be carefully considering how to structure the hearings over the coming months.

This is by no means the only significant new reactor issue that will require the Commission's attention over the next several months. Others include the proposed design certification rules for three new reactor designs, the oversight process for new reactor construction, and the risk thresholds for assessing the performance of new reactors. And, at the same time that the Commission tackles these issues surrounding large light-water reactor applications, the Commission also will be examining our licensing approach for small modular reactors, given the rising level of interest in that area.

Despite the agency's additional new reactor work in recent years, I cannot stress enough that the Commission never loses sight of the fundamental policy issues that are essential to the safety of operating facilities and materials licensees. One of the most important of those issues is safety culture.

The critical role of safety culture has become increasingly recognized in many areas, including most recently with regard to the Gulf oil disaster. As a safety regulator, the NRC must remain keenly aware of factors that can undermine an individual's or organization's commitment to safety. These include:

- A focus on production or profit over safety
- Work environments that are not conducive to raising safety concerns
- A lack of willingness by management to hear and respond to concerns, or to correct known or recurring problems.

We have seen in the nuclear field – most significantly with the Chernobyl disaster – the unfortunate consequences that can result from these sorts of failures in safety culture.

In recent years, the Commission's main safety culture initiative has been the development of a Commission policy statement on safety culture. Through this policy statement, the Commission hopes to guide the activities of the NRC staff and help set the agency's expectations of our licensees. The Commission has set out two important goals in drafting this statement. First, the Commission hopes to clarify the important role of security within safety culture. As with many other federal agencies, security issues have taken on added significance for the NRC over the last decade. Our licensees must recognize the importance of their security-related responsibilities, and take an integrated approach to assessing how their safety and security initiatives impact each other. Many safety activities can have beneficial security impacts, and vice versa. But there are also instances in which safety and security measures can work at cross purposes, and diminish each other's effectiveness. A strong safety culture will help make sure that licensees proactively approach these issues and take the necessary steps to avoid those kinds of problems.

Second, the new policy statement seeks to make clear that safety culture is an important issue for all of our licensees. Different factors may be at play, but a strong safety culture always remains important. For operating reactors with strong safety records, we have to be concerned that there might develop a "can't happen here" attitude – a sense of complacency borne of past successes. We should be wary of the view that just because something hasn't happened in the past, it won't happen in the future. Our nation's nuclear industry has gone down this road before – the Three Mile Island accident, or more recently the Davis-Besse vessel head degradation, wasn't thought probable or significant until it occurred. For potential new reactors, we have to be concerned that operators may place too much faith in the new technologies. There is no question that the industry has made a lot of progress in developing and enhancing nuclear safety technology over the last several decades. Events throughout the history of the nuclear industry, however, have repeatedly made clear that highly qualified and trained people are absolutely necessary for assuring safety.

And, of course, this is a tremendously important issue not only for operators of nuclear power plants, but also for the thousands of materials licensees who use nuclear materials for commercial, medical, and industrial purposes. Those uses expose large numbers of people to radiation on an everyday basis, and it is critical that the professionals involved in those fields take seriously their safety responsibilities. The Commission's past safety culture efforts tended to focus on reactor issues. I am confident that the Commission's new policy statement will make clear the importance of safety culture to the full range of the agency's licensees.

That is just a small sampling of the important policy issues on the horizon for the Commission. Whether we are considering mandatory hearings for new reactors, developing a safety culture policy statement, or considering any other initiative, the Commission will continue to maintain its singular focus on safety. The public should have strong confidence that the Commission will not lose that focus and will not be diverted from our mission of ensuring the health, safety and security of the American people. Thank you.