U.S.NRC
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Protecting People and the Environment

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Prepared Remarks of NRC Chairman Stephen G. Burns
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Thank you for inviting me here today to speak at your winter meeting. I appreciate that the season is actually late autumn. Better that than trudging through blizzards and mountains of snow, as I did last winter to make a few events on my calendar.

The Nuclear Regulatory Commission holds the American Nuclear Society in high esteem. You help educate the public about nuclear and radiological matters, you support the education of our future employees – and your membership includes some of our current employees. Just recently, you hosted me at a bloggers roundtable, which facilitated a conversation about NRC decision making and regulatory issues.

Your topic today – "The Foundation of Sensible Policy for Energy, Economy and the Environment" – is a bit problematic for the NRC.

We do ***not*** have – under the Energy Reorganization Act that created us – a role in ***energy policy***, sensible or otherwise. We leave that to our colleagues at the Department of Energy, Capitol Hill and the White House. We do, however have a role in sensible ***regulation***.

And I'd like to talk a bit this morning about how the NRC promotes sensible regulation that keeps people and the environment safe. Let me start by talking about the events at Fukushima Dai-ichi, which occurred nearly five years ago.

You may recall just two weeks after the accident, the Commission directed a task force of senior NRC staff members to make recommendations for strengthening safety at U.S. nuclear power plants. This Near-Term Task Force provided a preliminary, first-cut set of 12 recommendations after a 90-day review.

Those recommendations became the starting point for a more in-depth assessment that later considered input from the industry, public, other stakeholders and additional NRC staff members, and was acted upon by the Commission. The result of the more detailed assessment was a prioritization of the most significant work, which was then implemented through a series of orders, requests for information, and rulemaking.

Here is a snap shot of what the highest-priority work focused on:

- strategies for mitigating events beyond what the plants were designed for;
- improving instruments for measuring water levels in spent fuel pools;
- inspecting and re-evaluating seismic and flooding hazards at each nuclear power plant site;
- installing severe-accident capable vents for reactors with Mark I and II containments (those similar to the Fukushima units); and
- enhancing emergency preparedness communications and staffing.

These were sensible actions and sensible new requirements.

I am extremely proud of what we've achieved in the years after the accident to make nuclear power even safer. The response to the accident illustrates the positive outcomes that can be achieved when operators and the regulator work cooperatively, with due regard for our respective roles, to enhance the safety of nuclear facilities. We took the term "lessons learned" to heart and took action.

I have visited the site of the accident and the surrounding townships, and I have been struck by the starkness of what was once a vibrant, vital community. I came back with a renewed determination to help fulfill the safety mission of the agency.

The International Atomic Energy Agency recently issued a comprehensive report on the Fukushima Dai-ichi accident. The NRC reviewed the 45 observations and lessons identified in the Director General's summary report and determined the NRC and the U.S. nuclear industry had already considered every one. That is good news.

I've also had the opportunity to see first-hand many of the post-Fukushima enhancements that U.S. plants have installed. If you live in a community around a nuclear power plant or work in the nuclear power industry, you can be assured that the work of the NRC and the industry has resulted in sensible changes that further reduced the already small risk of a significant accident and radiological release.

But I also think we're at a pivot point. Many of the significant improvements in response to Fukushima will largely be completed at the end of 2016. As we continue this work, we must also focus on the future. So what is coming toward us?

I think one answer to that might be small modular reactors and advanced reactors. We expect to receive NuScale's application for certification of a small modular reactor design in late 2016. We recently co-hosted a workshop on the subject of non-light water reactors. It was well received and underscored the interest in new technologies.

These new technologies are a place where there is a coming together, a sensible intersection, of policy and regulation. This is where we clearly see the very different roles that NRC, DOE and industry play.

The NRC's role is to ensure the safety and security of new technologies. DOE provides support with research and project development. And, of course, the industry, both vendors of new technologies and the companies that may use them to generate electricity, provides the initiative.

The NRC's role, though, must be clear – we ensure the safety and security of new technologies, if they are to be employed. We don't advocate for them. DOE provides support with research and project development. And the industry initiates the projects.

The NRC and DOE have worked together before. There are many examples of past NRC and DOE cooperation on non-LWR projects, dating back to the Clinch River Breeder Reactor construction permit application, developed in part by DOE's predecessor agency, the Energy Research and Development Administration. In each case, the NRC and DOE worked together while staying in their congressionally mandated roles and responsibilities, and the industry did its part as well.

While the NRC's current regulatory framework is focused on light-water reactors, we believe we could license a non-LWR under the existing framework. However, because the NRC's current reactor licensing regulations and guidance documents were developed primarily on light-water reactor technologies, we recognize the potential knowledge gaps for both the staff and prospective applicants.

Also, if the NRC were to receive an advanced reactor application within the next five years, there may be challenges related to research and modeling work in both the technical issues and code development, as well as some critical skill gaps. We are working with DOE to address these gaps.

The NRC was part of a White House-initiated Nuclear Energy Summit last week where government leaders and industry came together. I was part of a panel during which I stressed the importance of the NRC's independence as a regulator as it relates to advanced reactors and our plans to continue working with DOE. A number of initiatives and ideas were discussed. I suspect you'll hear more about this in the coming weeks and months.

One related topic getting some attention recently is the possible costs for NRC reviews of applications for these designs. Unfortunately, some folks misinterpreted a DOE presentation to say it would cost $800 million to receive a final certification or license from the NRC. That's not accurate. The $800 million figure was mostly the designer's costs to develop and test the design to make sure it would work as planned. NRC's fees are only a fraction of that sum.

Here's something to keep in mind: NRC review costs depend on the quality and maturity of the applicant's information. The NRC always aims to efficiently and effectively review designs. Incomplete or inadequate information will likely increase costs since the NRC will spend more time and effort getting the data we need to determine whether the reactor could operate safely and securely.

As interest in SMRs and advanced reactors grows, it's important that the industry keep us informed so we can plan appropriately. The horizon of nuclear power in the U.S. has been somewhat fuzzy and we need solid information from industry to help us plan and change course to meet emerging demands. We're making adjustments now, but we need to continue open communication with the non-

LWR developer community and DOE to optimize our planning and resources for any future applications.

The future the NRC sees continues to include much of the current fleet of reactors and some new plants. While many of the new nuclear plants anticipated a decade ago did not, ultimately, go forward for licensing, there is still energy in the nuclear sector. As concerns about climate change grow, I believe there might yet be a renewed interest in new nuclear in the future.

It is also clear that our future workload will include more decommissioning activities. Over the past few years, five reactors permanently ceased operation earlier than anticipated and began the process of decommissioning. These reactors joined 14 other units in some stage of decommissioning under NRC oversight. In addition, just last week the FitzPatrick plant in New York signaled it will be closing, and both the Pilgrim and Oyster Creek nuclear plants have announced their plans to close by 2019.

The NRC has traditionally used operating reactor regulations for plants undergoing decommissioning. This means plants must ask for exemptions when the regulations for operating reactors are no longer relevant or appropriate for a plant that has shut down.

While this approach is sensible from a safety standpoint, the Commission has directed the NRC staff to initiate a reactor decommissioning rulemaking. We expect this rulemaking will improve the effectiveness and transparency of the decommissioning process. My goal is to keep us on track to get the Commission a final rule for consideration in 2019.

These changes in the industry echo changes occurring within the NRC. We are right-sizing the agency now under something we call Project Aim 2020. Project Aim is the blueprint of how the NRC is going to streamline and rebaseline itself in response to a changing environment. The NRC once geared up and expanded its talented staff to respond to changes in the industry, and we must respond again to redirect our energies, and adjust our staffing to meet the current work load.

While we won't be diverting resources from important licensing and oversight activities, we are taking a closer look at the work we do and how we do it, and evaluating our organizational structure. We're planning for a smaller workforce that makes sure we have the right people at the right place at the right time.

It's prudent, from time to time, to take a hard, honest look at ourselves and to ask difficult questions about what we're doing. I have every confidence in our ability as an agency to meet the challenge and to thrive.

We have a new Executive Director for Operations – Vic McCree. Most recently he headed our Region II Office in Atlanta. He has hit the ground running and taken up the reins of Project Aim. He's already made important management changes at the agency and he's barely been in headquarters long enough to move into his office. The Commission fully supports Vic in his efforts to implement change. And the Commission is actively involved in leading the transformation, which is occurring at a steady pace.

Some stakeholders – not necessarily any of you here today – have expressed some skepticism of the NRC's efforts with Project Aim. Is the NRC really taking this seriously? The answer to the skeptics inside and outside the NRC is this: Yes, we are.

Let me elaborate. The Commission ***is*** taking this seriously and it ***will*** work. We will adjust the way we do business in order to continue to be the responsible, credible, independent regulator that stakeholders and the industry want and need. That is exactly what we have done over the course of our history.

While Project Aim will build an organizational structure that improves the NRC's ability to respond, plan and execute our mission, we are being careful to maintain the expertise needed to do our job. The NRC currently has some 3,700 employees, down from a peak of about 4,000 employees in fiscal year 2010. Under Project Aim, our staffing target is 3,600 employees by the end of this fiscal year.

But while we glide downward, we must keep key skill sets. We need to manage our institutional knowledge and to recruit to maintain expertise in mission-critical areas. That might be good news for those who are looking to join the NRC in the future. While we right size, we will continue to recruit new talent as needed.

Even as we restructure, the Commission continues to emphasize both the importance of our mission and the excellence with which we achieve it. Our success is due to our dedicated, highly-trained and knowledgeable NRC staff. It is the staff's professionalism and commitment to maintaining the safe and secure use of nuclear materials and facilities that has established NRC's worldwide reputation as a strong, independent and technically competent regulator.

I've touched on a number of different topics today that support sensible regulation. I hope I touched on some areas you've been wondering about. But if you remember nothing else from this morning, I'd like you to remember this: To build on our strength of technical competence, the NRC is learning from experience and listening to new ideas – some of which don't necessarily come from inside the NRC.

We want to build on our solid track record and a reputation as a premier regulator that other countries model themselves upon. We are responsible and credible, and we work hard to maintain the public's trust in our actions.

There are challenges ahead. There have always been challenges ahead. But the NRC can – and will – meet those challenges and continue to carry out our important mission: to protect public health and safety, the common defense and security, and the environment.

Thank you for inviting me to speak to you this morning.