U.S.NRC
United States Nuclear Regulatory Commission
Protecting People and the Environment

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Prepared Remarks of NRC Chairman Stephen G. Burns
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Good afternoon. I appreciate the opportunity to appear before you today at your Annual Membership Meeting and Public Policy Forum. Today, I plan to provide an overview of the U.S. Nuclear Regulatory Commission's (NRC's) current activities. I am now entering just my fifth month as Chairman of the NRC, having been designated by President Obama as Chairman on January 1 of this year. As you may know, I had earlier retired from the NRC in 2012 after a nearly 34 year career that culminated in my service as the agency's General Counsel. It has been interesting to observe and experience the NRC anew after the brief three years of my hiatus in Paris at the OECD Nuclear Energy Agency.

NRC at 40

In January, the NRC marked its 40th anniversary as the independent federal agency responsible for licensing and regulating the nation's civilian use of radioactive materials to ensure protection of public health and safety, common defense and security, and the environment. The regulatory responsibilities assigned by Congress when the NRC was newly formed remain the same today, to protect public health and safety and the safeguarding of nuclear materials.

The NRC has licensing and oversight activities for commercial nuclear power reactors, research and test reactors, decommissioning and waste management activities, uranium recovery facilities, fuel facilities, and radioactive materials users, including those overseen directly by the 37 states, known as "Agreement States," that have agreements with NRC to assume regulatory responsibility for the use of certain radioactive materials.

Our first years in existence as an agency, newly separated from the former Atomic Energy Commission and solely focused on safety and safeguards, were a period of transition. Even as we were establishing our regulatory footing as a new agency, we were quickly challenged by a destructive fire at the Browns Ferry plant, which led to the development of a new set of fire protection regulations, and by the accident at the Three Mile Island plant. As a result of that accident, the NRC placed greater emphasis on a variety of safety enhancements, including operator training and human factors engineering, emergency planning, and the collection and analysis of operating experience.

The terrorist attacks on Sept. 11, 2001, marked another seminal event in the agency's history. Following the attacks, the NRC ordered nuclear plants to implement enhanced security measures

designed to protect against an increased threat. The agency also focused on increasing public awareness of our emergency preparedness capabilities.

More recently, the Fukushima Dai-ichi accident in Japan resulted in NRC and the industry taking significant actions to enhance the safety of nuclear reactors in the United States, which I will discuss in more detail in a moment.

Today, the NRC's regulatory program has been substantially strengthened, based in part on what we have learned from domestic and international operating experience. Our highly trained staff continues to provide extensive oversight of our reactor and materials licensees and perform comprehensive safety and environmental reviews of many, very complex licensing actions to determine whether the proposed activities satisfy our regulatory requirements and are adequate to protect public health, minimize danger to life and property, and protect the common defense and security.

Project Aim 2020

Presently, the NRC is keenly aware of the impacts of change. The lingering impact of the 2008 economic crisis, and its effect on the energy markets, have caused the NRC to re-evaluate its anticipated work load. At the same time, the NRC is being scrutinized by its stakeholders for its responsible use of resources, and the agency is taking a hard look at whether it is effectively using these resources.

In June 2014, the NRC staff embarked on an effort called Project Aim 2020. The Project Aim 2020 team gathered perspectives from internal and external stakeholders to forecast the workload and operating environment in the year 2020. Based on analyses of these perspectives, and an evaluation of the NRC's current state compared with the anticipated future state, the staff developed a report that identified key strategies and recommendations to transform the agency over the next five years to improve our effectiveness, efficiency, and agility.

The staff's recommendations and proposed strategies focused on enhancing our ability to plan and execute the agency's mission more efficiently while adapting in a timely and effective manner to a dynamic environment. The recommendations focus on four primary areas: (1) "right-sizing" the agency while retaining appropriate skill sets needed to accomplish our mission; (2) streamlining agency processes to use resources more wisely; (3) improving timeliness in regulatory decision making and responding quickly to changing conditions; and (4) promoting unity of purpose with clearer agency-wide priorities. These recommendations were presented to the Commission in late January 2015, and the Commission is in the last stages of finalizing its direction to the staff.

The Commission considers this report to be an important step in the dialogue about the future of the NRC. My fellow Commissioners and I are taking a hard look at how to ensure the agency maintains the ability to perform our safety and security mission while also being more efficient. We know that we need to retain the appropriate skill sets to accomplish our mission, but we recognize that we can improve on how we reprioritize activities based on emergent needs and can respond more quickly to changing conditions.

Fukushima Lessons Learned

As I noted earlier, ensuring timely implementation of safety enhancements at nuclear power plants as a result of the lessons learned from the accident at the Fukushima Dai-ichi nuclear power plant in Japan continues to be a priority for the agency. The NRC and the industry continue to make substantial progress in implementing safety enhancements and the primary focus throughout this effort has been on implementation of the highest-priority, most safety-significant enhancements to maximize the safety benefit at nuclear power plants in the short term.

The NRC expects that most licensees will complete implementation of the majority of the most safety-significant enhancements by, or before, 2016. These include safety enhancements in the following areas: requiring severe-accident capable vents for BWR mark I and II reactors (the type of reactors at the Fukushima site); strategies for mitigation of impacts due to events that are beyond those that the plant was designed to withstand; improved instruments for measuring the water level in spent fuel pools; modern evaluations of flooding and earthquake hazards at each site; and enhancements to emergency preparedness communications and staffing.

Last year, the first plants completed implementation of a 2012 Mitigation Strategies order, which requires sites to be prepared to respond to beyond design basis events. More than half of nuclear power plants are scheduled to achieve full implementation by the end of 2015, and the remaining plants, with limited exceptions, will complete the necessary actions by 2016. Also in the past year, both of the industry's National Response Centers (in Phoenix, Arizona and in Memphis, Tennessee) have become operational and are available to serve any site in the country today. Both centers contain multiple sets of emergency diesel generators, pumps, hoses, and other backup equipment that can be delivered to any nuclear power plant in the United States within 24 hours.

New Reactors

Since 2001, the agency has also grown significantly to prepare for the large projected growth in the use of nuclear power in the United States. The agency aggressively built the technical capability and infrastructure required to support the projected wave of new reactor license applications.

While the NRC initially received applications seeking construction of 26 new reactors, most applicants have either withdrawn their applications or have requested that the NRC delay or suspend the licensing reviews of their applications. The NRC has adjusted its forecast for new reactor activities downward in response to continuing changes in the nuclear industry. Today there are only seven applications actively under review, although the NRC's construction oversight activities continue in earnest. NRC is conducting inspections of five new reactors under construction -- Vogtle Electric Generating Plant, Units 3 and 4, Virgil C. Summer, Units 2 and 3, and Watts Bar Unit 2 – and plans to begin review of one anticipated small modular reactor application in 2016.

Yucca Mountain

Certainly an area that has received significant attention throughout the life of the NRC, as much now as ever, is the Nation's long-term strategy for disposal of high-level waste. In 2013, the NRC was directed by the D.C. Circuit Court of Appeals to resume its review of the Yucca Mountain construction authorization application using previously appropriated carry over funds. In January 2015, the staff completed and published the final volumes of the Safety Evaluation Report. In the report, the staff

concluded that the Department of Energy's (DOE) application met regulatory requirements, except for certain requirements related to ownership of land and water rights. At the direction of the Commission, the staff has begun work on a supplement to DOE's environmental impact statement to address the impacts of the proposed repository at Yucca Mountain on groundwater as well as the impacts from groundwater discharges to the surface. The staff expects to publish that supplemental environmental impact statement in the spring of 2016.

Before any decision can be made on the Yucca Mountain construction authorization application, the supplemental environmental impact statement would have to be completed, an adjudicatory hearing would have to be held which presumes that the applicant will take an active role, and the Commission would have to complete its review of contested and uncontested issues. It is uncertain how long it would take to resolve the existing 288 issues that were admitted in the hearing (called "contentions"), not considering possible new or amended challenges. The agency's preliminary cost estimate for completing the license review and making a decision on whether to authorize construction of the repository is approximately $330 million. This estimate does not include any costs that DOE might incur as the applicant.

Decommissioning Proposed Rulemaking

Oversight of decommissioning reactors is another area where NRC has experienced an unanticipated increase in workload. After 15 years without a power reactor permanently shutting down, five reactors recently closed before the end of their operating license term. While the NRC has extensive experience with regulating decommissioning -- 11 reactor licenses have been terminated since 1982 -- the NRC's current regulatory framework could be explicitly tailored to address the decommissioning of reactors. The NRC's regulations do not specifically address this, and as such, the transition to decommissioning has resulted in licensees' requests for exemptions from certain NRC regulations once their plants permanently ceased operations and have been defueled. The NRC has largely granted these requests in recognition of the fact that the risks associated with a permanently shut down plant are far less that those associated with an operating plant.

In December 2014, to increase the efficiency and predictability of the NRC's regulatory program, the Commission directed the staff to proceed with a rulemaking on reactor decommissioning and set an objective of completing it by early 2019. The staff has begun work on the regulatory basis for a decommissioning rulemaking.

Conclusion

In closing, I would emphasize that, in my last few years away from the NRC, I was struck by both the respect for this agency within the international community, as well as that community's interest in how the NRC deals with the challenges of nuclear regulation. This is due in no small part to the dedicated, talented, and knowledgeable staff of the NRC. It is the strength of our staff and their commitment to maintaining the safe and secure use of nuclear materials and facilities that has established the agency's world-wide reputation as a strong, independent and competent regulator.

That said, in times such as these where change is expected and inevitable, the NRC's ability to respond and adapt with agility as an agency is a necessity in order to continue to successfully uphold its mission. I know that the United States Energy Association and its member organizations, many of whom are licensees, applicants, Federal partners, and other parties directly or indirectly impacted by

NRC activities, are also affected by those same external events that have and will continue to affect the NRC. Therefore, I encourage you to remain engaged with the NRC and to take full advantage of the numerous opportunities that the staff provides for stakeholder involvement to share information and to ensure that the NRC is able to hear and consider your views during the regulatory process.

Thank you once again for the opportunity to share my thoughts with you today and I look forward to engaging with you in the future.