



**U.S. House of Representatives
Subcommittee on Energy and Power
Hearing on Enabling Advanced Reactors and a Legislative Hearing on
“H.R. 4979, the Advanced Nuclear Technology Development Act of 2016 and
H.R. _____, Nuclear Utilization of Keynote Energy Policies Act”**

**The Honorable Jeffrey S. Merrifield Commissioner, U.S. Nuclear Regulatory Commission
(1998-2007)**

**Partner, Pillsbury Winthrop Shaw Pittman &
Chairman, USNIC Advanced Reactors Task Force**

April 29, 2016

Chairman Whitfield, Ranking Member Rush and members of the Subcommittee, as a former Commissioner of the U.S. Nuclear Regulatory Commission (NRC), I frequently testified before this Committee and it is again an honor to be here this morning. Today, I am appearing in my role as Chair of the U.S. Nuclear Infrastructure Council Advanced Reactors Task Force, although my full time occupation is as a Partner at Pillsbury Law Firm.

My testimony will discuss the provisions in H.R. 4979 on Advanced Reactors as well as the proposed changes to the NRC procedures that are the subject of the discussion draft offered by Congressman Kinzinger. NIC salutes the Subcommittee’s focus and support for Advanced Reactors as well as the NRC budget reform provisions that provide funding for the NRC to develop a modernized nuclear licensing framework for advanced nuclear technologies. NIC issued a Framework for Advanced Reactor Licensing Modernization White Paper on February 22, 2016, which embraces many of the elements contained in the legislation.

When I first became a Commissioner in 1998, the NRC, with the support of Congress worked to “right size” the agency consistent with the level of licensing and inspection activities. At that time, the Agency had approximately 3,400 employees, and within the next few years, we were able to reduce that down to about 2,800 – principally through attrition – yet not at any sacrifice to its mission of protecting people and the environment.

Today, the Agency faces the same challenge to reduce its staff and to become more efficient and timely in its licensing activities. While the NRC has made great strides in “right sizing” the Agency through Project AIM, we believe further efficiencies can be realized, while at the same time maintaining safety and inspection activities and-improving the timeliness of licensing.

During the past decade, the U.S. has maintained its technology leadership by building new passive Generation III+ reactors in Georgia and South Carolina as well as small, modular, light-

water nuclear reactors headed toward deployment. NIC has seen significant growth and support for Generation 4 Advanced Reactors that will provide expanded options for economical, carbon-free electricity and industrial heat generation. If the U.S. is to be successful in maintaining its lead in developing and deploying these reactors in the late 2020s and 2030s, Congress must consider significant policy changes.

We believe the language in Section 6 of H.R. 4979 will allow the Agency to create a modern, risk informed, technology neutral framework which will enable the development of appropriate Advanced Reactor regulations, without passing these development costs to utilities or developers.

While Section 6(a)(6) calls for the NRC to evaluate “options” to allow applicants to use “phased review processes”, we believe the language should be strengthened to require the NRC to establish specific stages in the commercial Advanced Nuclear Reactor licensing process, including a pre-licensing vendor design review modeled after the Canadian Nuclear Safety Commission vendor design process that was recommended in the NIC White Paper. Such a process would enable Advanced Reactor developers and investors to have a clearer picture of where they stand in the NRC process and in meeting NRC safety requirements.

We would also emphasize the need to establish risk-informed, performance criteria applicable for Advanced Reactors. While licensing process reforms are needed, Advanced Reactor technical performance criteria appropriate for non-light water reactors are critically required for developers to proceed with Advanced Reactor designs, and the NRC must move forward to finalize advanced generic design criteria, source term, and emergency planning requirements among others.

We commend the Committee for its continued focus on providing more timely and risk informed decision-making by the NRC. We support Section 6 of the discussion draft which creates specific timelines for the Agency to conduct environmental reviews, safety analysis reports and public licensing hearings. I made similar recommendations when I led a licensing task force as an NRC Commissioner.

We strongly support Section 2 of the discussion draft, which places fair and equitable provisions on the Agency’s fee based programs. By eliminating the current fee-based to non-fee based ratio, and articulating the specific areas that will be borne by general revenues, the draft provides the appropriate balance between the fees borne by individual companies, and those overhead activities covered by the federal government.

NIC believes that the discussion draft would be strengthened by providing that the early stage engagement between Advanced Reactor developers and the NRC should be conducted at no or limited cost, with an appropriate cost share – perhaps 50/50 for latter stages of the licensing process. While this could be funded through the use of general revenues or a DOE grant program – either way – it should avoid the DOE and NRC picking Advanced Reactor “winners and losers”. We believe, the private sector is better placed to identify and promote innovation and the NRC licensing fees should not have a chilling effect on these entrepreneurial efforts.

Regarding the Foreign Ownership provision of Section 3, I would recommend that Congress simply eliminate this requirement as an antiquated artifact of the Cold War. This is consistent with testimony I and the Commission gave before Congress over 10 years ago.

Finally, I enthusiastically support the elimination of the mandatory hearing requirements contained in Section 4 and would be pleased to discuss my views with the Subcommittee

In conclusion, we believe it is time to make appropriate reforms to the NRC overhead and fee process as well as modernize the Agency's licensing program to spur innovation and enable Advanced Reactor technologies to achieve their full promise. We believe that H.R. 4979 and the Kinzinger discussion draft make significant progress toward achieving these important goals and we are committed to working with the Committee towards their prompt and successful passage.

Thank you very much for allowing me to testify today.