

United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

WASHINGTON, DC 20510-6175

December 19, 2019

Kristine L. Svinicki
Chairman
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, Maryland 20852

Dear Chairman Svinicki:

We request an update on the Nuclear Regulatory Commission's (NRC) implementation of the Nuclear Energy Innovation and Modernization Act (NEIMA). Nearly a year ago, Congress passed NEIMA with overwhelming bipartisan support. NEIMA directs the NRC to establish a risk-informed, performance-based regulatory framework to license and oversee advanced nuclear technologies. We strongly support the NRC's efforts to implement this requirement.

Nuclear energy currently generates over half of our nation's carbon-free electricity. Advanced nuclear reactor designs can be safer, cheaper, and more efficient than today's large, light-water reactors. The NRC must establish predictable, but flexible, regulations to allow American nuclear scientists, engineers, and entrepreneurs to successfully commercialize advanced technologies.

Section 103(a) of NEIMA requires NRC develop and implement, within the existing regulatory framework, strategies for risk-informed, performance-based licensing of advanced nuclear technologies by January 14, 2021. Prior NRC reports¹ and outside expert stakeholders² support this regulatory approach. We recognize the NRC has utilized a risk-informed regulatory approach since the 1980s. As intended by NEIMA, we urge greater utilization of this approach.

In July, the NRC provided us the work plan to reform the licensing process. The report states the Commission is actively working to resolve policy issues associated with emergency preparedness, physical security, functional containment, siting, and insurance for advanced reactor licensing.³ Advanced reactors use significantly different materials, coolants, size, and fuels from traditional light-water reactors. NRC should evaluate how these different characteristics will translate into the regulatory framework in the short-term.

Further, the NRC must establish a technology-inclusive regulatory framework to license advanced nuclear reactors no later than 2027. The Commission should build upon the short-term regulatory changes to establish regulations that reflect the increased safety and performance of advanced nuclear technologies.

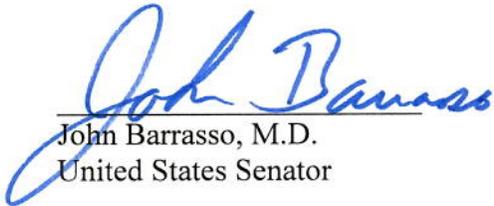
¹ U.S. Nuclear Regulatory Commission, "NRC Vision and Strategy: Safely Achieving effective and Efficient Non-Light Water Reactor Mission Readiness," December 2016. Accessible at: <https://www.nrc.gov/docs/ML1635/ML16356A670.pdf>

² Nuclear Innovation Alliance, "Enabling Nuclear Innovation: Strategies for Advanced Reactor Licensing," June 7, 2016. Accessible at: <https://www.nrc.gov/docs/ML1615/ML16155A282.pdf>

³ U.S. Nuclear Regulatory Commission Reports to Congress, as required by the Nuclear Energy Innovation and Modernization Act, July 19, 2019. Accessible at: <https://www.nrc.gov/docs/ML1912/ML19128A289.html>

We thank you for the Commission's ongoing efforts to implement NEIMA. The Commission must remain focused on developing regulations and supporting guidance documents that use a risk-informed and performance-based approach. Doing so will provide the necessary outlook to capture the immense potential of next generation of advanced nuclear technologies. We look forward to your reply.

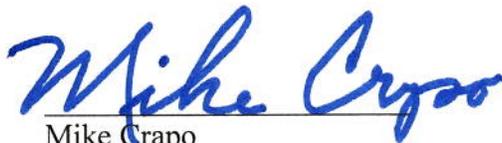
Sincerely,



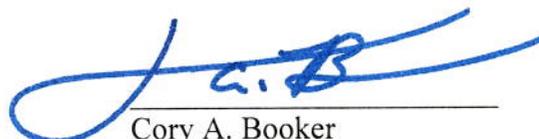
John Barrasso, M.D.
United States Senator



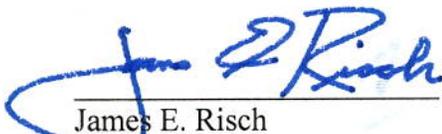
Sheldon Whitehouse
United States Senator



Mike Crapo
United States Senator



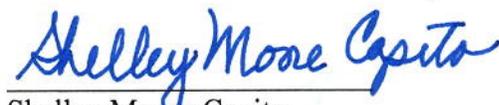
Cory A. Booker
United States Senator



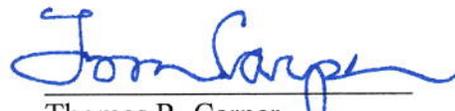
James E. Risch
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United States Senator



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Tammy Duckworth
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