

United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

WASHINGTON, DC 20510-6175

May 14, 2020

The Honorable Kristine Svinicki
Chairman
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852

Dear Chairman Svinicki,

We support the Nuclear Regulatory Commission's (NRC) efforts to develop a technology-inclusive regulatory framework for advanced nuclear reactors. The Nuclear Energy Innovation and Modernization Act (NEIMA) requires the NRC to complete a rulemaking to license and regulate these technologies not later than December 31, 2027. We strongly encourage the Commission to identify actions to accelerate the development of this technology-inclusive regulatory framework prior to the statutory deadline.

Advanced nuclear reactors are expected to be smaller, safer, and more efficient. Some even hold the promise of re-using spent nuclear fuel. We expect the NRC's regulatory framework will account for the innovative features of advanced nuclear technologies. We also expect the NRC's rulemaking to establish the rules to license and regulate these advanced nuclear technologies in a predictable, efficient, and affordable manner. This will help nuclear innovators successfully deploy advanced nuclear technologies with enhanced performance and reduced risk.

The Commission is currently reviewing the NRC staff's proposed rulemaking plan, titled "Risk-Informed, Technology-Inclusive Regulatory Framework for Advanced Reactors."¹ The plan proposes to publish the final rule in August 2027. This may not provide adequate time to comply with NEIMA's statutory deadline, if the NRC encounters unexpected delays. NEIMA's statutory deadline is intended to serve as a backstop, not a target completion date.

More than fifty advanced reactor designs are in different phases of development in the United States.² Several developers have initiated licensing activities. The first design certification for a small modular reactor (SMR) is on track to be issued later this year. Two other SMR designs are in the pre-application phase. The NRC has also identified more than twenty potential near-term advanced non-water reactor applicants, representing at least seven unique reactor designs.³ In March, the NRC received the first application for a non-water reactor and three more applications for novel designs are expected by the end of this year.⁴ Our nation's nuclear innovators are aggressively working to deploy advanced nuclear technologies. It is imperative the NRC's advanced reactor rulemaking keep pace.

¹ [SECY-20-0032](#).

² <https://www.thirdway.org/graphic/keeping-up-with-the-advanced-nuclear-industry>

³ <https://www.nrc.gov/reading-rm/doc-collections/commission/slides/2020/20200206/staff-20200206.pdf>

⁴ Ibid.

NEIMA authorizes appropriations through fiscal year (FY) 2024 to complete this rulemaking. To date, Congress has appropriated nearly \$40 million, including \$15 million in FY 2020 to develop this new rule. The Commission should heed the direction and funding provided by Congress to expedite this rule. This will ensure applicants seeking to deploy advanced reactors this decade can work with an established regulatory framework in a timely and efficient manner.

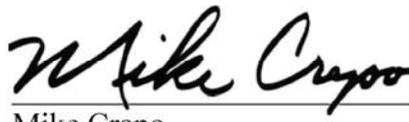
The proposed rulemaking plan acknowledges staff may find opportunities and efficiencies that could support earlier completion of the rulemaking. Setting high expectations for an aggressive schedule will more likely result in the realization of those efficiencies.

We appreciate the NRC's efforts thus far to prepare for the licensing of advanced nuclear technologies. The Commission is demonstrating a commitment to develop regulations based on performance and informed by risk. We look forward to your consideration of our request.

Sincerely,


John Barrasso, M.D.
United States Senator


Sheldon Whitehouse
United States Senator


Mike Crapo
United States Senator


Cory Booker
United States Senator