



TESTIMONY OF

Daniel H. Dorman
Executive Director for Operations
U.S. Nuclear Regulatory Commission

For a Hearing

BEFORE

United States House of Representatives
Committee on Oversight and Accountability
Subcommittee on Economic Growth, Energy Policy,
and Regulatory Affairs

ON

“The Next Generation: Empowering American Nuclear Energy”

January 18, 2024
Washington, D.C.

Chairman Fallon, Ranking Member Bush, and distinguished members of the Subcommittee, my name is Dan Dorman. I am the Executive Director for Operations at the Nuclear Regulatory Commission (NRC). The NRC is an independent federal agency with a mission to license and regulate the civilian use of radioactive materials to provide adequate protection of public health and safety, promote the common defense and security, and protect the environment. Within the NRC, the Executive Director serves as the chief operating officer. I welcome the opportunity to address this Subcommittee and describe the NRC's role in licensing and regulating nuclear power so it is deployed and operated in a safe and secure manner.

REGULATORY FRAMEWORK FOR NEW AND ADVANCED REACTORS

Industry is developing new and advanced reactor designs, and the NRC staff is reviewing pre-application materials and applications commensurate with the risk and safety significance of the proposed technology. Over the past several years, the NRC has been working to modernize its existing licensing processes to support the deployment of new and advanced reactors through the use of risk-informed and performance-based techniques and updated regulatory guidance. Additionally, the NRC has streamlined its licensing review process by using a "core team" approach to complete reviews of applications we have received so far. Last month, the NRC issued a construction permit to Kairos Power LLC for the Hermes fluoride salt-cooled, high-temperature non-power reactor after completing all required steps, including the safety and environmental reviews, ahead of schedule.

In addition, the NRC is enhancing its regulatory infrastructure for new and advanced reactors in an open and transparent manner with substantial stakeholder engagement. For example, the NRC recently issued a final rule and associated regulatory guide that applies risk-informed, performance-based emergency preparedness requirements to small modular reactors and other new technologies. The NRC is developing a new optional regulatory framework for licensing new reactors in accordance with the Nuclear Energy Innovation and Modernization Act or NEIMA. The rule would establish a technology-inclusive, risk-informed, and performance-based regulatory framework for licensing and oversight of new commercial nuclear power plants. The NRC expects to issue the final rule ahead of the NEIMA deadline of December 31, 2027. The NRC staff is also working on a rulemaking to facilitate efficient licensing of fuels with higher enrichment and burn up, which are critical aspects of many advanced reactor designs. The staff continues to develop guidance for advanced reactor licensing, including guidance related to the Technology-Inclusive Content of Application Project and Advanced Reactor Content of Application Project, which is expected to be published later this year. Additionally, the staff is working on a rulemaking and guidance to build on the NRC's existing process for licensing the use of byproduct materials and establish a framework to regulate near-term fusion facility designs ahead of the NEIMA deadline of December 31, 2027.

NUCLEAR FUEL SUPPLY CHAIN

The NRC continues to monitor potential impacts on fuel supply for the U.S. commercial nuclear fleet and the domestic fuel cycle suppliers and remains in close communication

with the Department of Energy and other Federal agencies on the availability of non-Russian sourced fuel. The NRC staff also routinely communicates with industry to understand its near-term and longer-term licensing needs to potentially replace uranium and fuel cycle services that have come from Russia. The Commission recognizes the national strategic importance of these issues and held a public meeting in December 2023 to learn more about the Administration's short- and long-term domestic uranium fuel strategy and the NRC's readiness to support licensing and oversight.

The NRC has recently issued several major fuel supply licensing actions and authorizations. For example, in September 2023, the NRC authorized American Centrifuge Operating LLC to proceed with its planned demonstration project to produce high-assay low-enriched uranium. The NRC has also issued several authorizations allowing increased enrichment and accident tolerant fuels to be loaded in radioactive material transportation packages. The NRC staff performed thorough and transparent safety, security, and environmental reviews and completed all on schedule.

The NRC staff is prepared and expecting to review between 12 and 14 additional major fuel supply licensing actions in the future and will continue to have other informal discussions with potential applicants.

CONCLUSION

I appreciate the Subcommittee's interest in the NRC's mission and the work of its dedicated staff, as well as the opportunity to address you today. We appreciate the

continued engagement with members of Congress, and I look forward to your questions.