

Chair Christopher T. Hanson
Remarks for the Sixth Symposium on
U.S.- Japan Nuclear Energy Research Cooperation
February 24, 2023

Good morning. I'm honored to address this symposium for the third time since joining the Nuclear Regulatory Commission. I'm grateful to the Japan Atomic Energy Agency and the U.S. Department of Energy for organizing another great event focused on the important cooperation between our countries on nuclear energy research. I also appreciated the opportunity to meet with JAEA leadership during my recent visit to Japan.

It's an exciting time at the NRC, and I welcome the opportunity to provide you with some insights on our ongoing work to prepare for regulating advanced reactors in the United States. As interest in advanced reactors continues to increase around the world, the NRC and its regulatory counterparts are working diligently to prepare to license these technologies efficiently and ensure they can be constructed and operated in accordance with the highest standards of safety and security. International cooperation has never been more important in order to achieve these objectives.

Before I share more about the NRC's advanced reactor work, I would like to highlight the vital relationship between the United States and Japan on civil nuclear cooperation. The engagement the NRC enjoys with both JAEA and the Japan Nuclear Regulation Authority is essential in sharing operating experience, best practices, and lessons learned. Our strong partnership has directly enhanced nuclear safety in both of our countries and worldwide.

More broadly, the bilateral relationship between our countries extends across all agencies involved in civil nuclear policy, technology development and deployment, and oversight. We're pleased to further highlight and enhance this cooperation to help Japan achieve its goals during this year's G7 presidency.

I recently visited the Fukushima Dai-ichi site and had the unique opportunity to view the damage at Unit 4. It's one thing to talk about the importance of information-sharing among bilateral partners while enjoying coffee in a well-appointed conference room. But being at the Fukushima site, dressed in protective clothing and climbing scaffolding to view inside the reactor unit, this engagement takes on new meaning. I was deeply moved by the courage and perseverance of the workers onsite and had renewed admiration for Japan's openness and willingness to share insights from the accident.

Last year at this event, I expressed my hope that our countries would continue their strong cooperation to help strengthen nuclear safety and security worldwide, particularly as more countries around the world explore nuclear power as a potential part of their energy mix. I'm pleased to say that I believe we are continuing together on this important path.

With that in mind, let me share a few updates about advanced reactor activities at the NRC. As I mentioned at the outset, it is a busy and exciting time for us as we continue our work

on reactor license application reviews, pre-application engagement with industry, and efforts to strengthen and optimize our regulatory framework.

We are currently in the process of reviewing two license applications, one for Kairos Power's Hermes test reactor planned for a site in Oak Ridge, Tennessee, and one for a molten salt research reactor planned for construction at Abilene Christian University in Texas. We're also continuing important pre-licensing engagement with a variety of companies, including TerraPower, X-Energy, and Westinghouse. We believe this engagement is critical to lay the groundwork for a smooth and efficient license application review. Pre-application engagement enables the NRC to establish lines of communication with key industry representatives and ask pertinent questions in advance to help ensure that license applications include the information necessary for our staff experts to perform an efficient and comprehensive review.

I also want to recognize JAEA's cooperative activities with U.S. reactor developers like TerraPower to share non-light water reactor experience which can ultimately benefit NRC's review efforts by helping provide a more robust technical basis. At the same time that we continue these reviews and engagements, the NRC is also continuing to fine-tune its regulatory framework for new reactor applications to help ensure it is clear, stable, predictable, and technology-inclusive. We're continuing to make progress on developing our new proposed regulation, Part 53, with input from a broad variety of key stakeholders.

In addition to our preparations to license advanced technologies for domestic use in the United States, the NRC is also mindful of the need to prepare to license exports of U.S.-designed new reactors for deployment overseas. To that end, NRC staff conducted a holistic review of our export licensing regulations to ensure that we are prepared to review any export license applications in a thorough and timely fashion. The staff concluded that our regulations are generally ready to license components and materials associated with five main types of advanced reactor but could benefit from some clarifications.

As with all aspects of our program, the NRC is mindful that international cooperation will be essential in ensuring that advanced reactor regulation is effective and safe. We're also mindful that regulatory reviews take time, and we and our regulatory counterparts remain committed to collaborating as appropriate on ways to make the review process predictable and efficient, particularly when multiple regulators are reviewing the same design at the same time. The NRC's ongoing pilot cooperation project with its counterparts at the Canadian Nuclear Safety Commission is yielding important insights about how parallel design reviews can work in practice.

Finally, to come back to the topic at hand, research and testing activities are essential for safe advanced reactor deployment to succeed. As you will hear from Ray Furstenau in greater detail later this morning, the NRC continues its engagement with U.S. national labs, reactor designers, and the international research community. This engagement is critical to ensuring that we can conduct effective technical reviews and validate applicants' safety cases. The NRC, and the United States as a whole, will continue to benefit from Japan's insights and expertise.

As we continue our work on advanced reactors, we greatly value opportunities like this symposium to foster lasting, meaningful counterparts with experts at all levels and disciplines. I

appreciate the opportunity to address you this morning and wish all of you fruitful and productive discussions for the rest of the day. Thank you very much.