

Statement of Commissioner Jeff Baran
House Committee on Energy and Commerce
Subcommittee on Energy, Climate, and Grid Security
June 14, 2023

Chairman Duncan, Ranking Member DeGette, and members of the Subcommittee, thank you for the opportunity to testify today. It's always great to be back with my colleagues to discuss NRC's important work.

I've been reflecting on the changes in the nuclear energy landscape since I left the Energy & Commerce staff and joined the Commission in 2014. A lot has changed. We've seen major shifts in NRC's workload, budget, staff size, hiring, and overall outlook for the future. When I arrived on the Commission, these factors were all on a downward slope. Our workload was shrinking. Our staff and budget were shrinking. We had the Project AIM effort to reduce costs, narrowly avoided layoffs, and essentially had a hiring freeze. Nuclear power plants were shutting down. Back then, there was little talk of new construction beyond Vogtle. There was some interest in small modular reactors, but almost no real discussion of advanced, non-light-water reactors.

Today, we are in a very different situation. Policymakers and the public are increasingly focused on climate change and on energy security. The urgency and scale of the challenge have led to a growing consensus that meeting ambitious climate and energy security goals will involve nuclear power, including new reactors. The bipartisan infrastructure legislation and the Inflation Reduction Act make large investments to drive this expansion, including through the Clean Electricity Production Tax Credit and funding for a domestic high-assay low enriched uranium supply chain. Few, if any, nuclear power plants are expected to close anytime soon. With more potential applications for advanced reactors, small modular reactors, subsequent license renewal, new fuel designs, power uprates, and risk-informed programs expected, NRC's overall workload

is increasing. We are hiring again, and our budget requests are stabilizing, or even growing a bit, to allow us to do this new work. The outlook for nuclear has markedly changed, and it is an exciting time to be doing our important work.

NRC has a key role to play in addressing climate change and energy security. It is our job to ensure the safety and security of nuclear power in the U.S. energy mix. To accomplish our mission, NRC needs an efficient, effective, and timely licensing process that can handle every application that comes our way. That is an important NRC responsibility.

Based on pre-application interactions with potential licensees, the NRC staff anticipates that at least 20 advanced reactor designs, reactor license applications, and early site permit applications will be under review in the next few years. The Department of Energy, utilities, and vendors predict that applications for hundreds of additional reactors may follow in the coming decades. NRC must therefore be fully prepared for a surge in new reactor work.

Readiness is a multi-faceted challenge. NRC has intensified its focus on having sufficient resources and the right expertise to conduct these reviews. We're focused on retaining our talented staff and on the significant external hiring necessary to do the work in front of us now and to be ready for the work coming our way. The agency is also working hard to establish a risk-informed, performance-based, and technology-neutral regulatory framework for new reactors.

At the same time, the staff is taking steps to make individual licensing reviews more efficient and predictable. The NRC staff is employing core review teams with stable staffing over time, doing more in-person checks of supporting information and fewer formal requests for information, addressing more substantive technical issues during pre-application engagement, elevating tough licensing issues more quickly for senior leadership or Commission direction,

using probabilistic risk assessments to focus reviews on safety significant items, and utilizing data analytics to quickly identify schedule risks. In addition, the staff has developed a draft Generic Environmental Impact Statement for Advanced Reactors.

These efforts are already having an impact. The Kairos application for a fluoride salt cooled high temperature reactor using TRISO fuel is scheduled for a 21-month safety review, while Abilene Christian University's application for a molten salt research reactor is set for an 18-month safety review.

To sustain and build on this early progress, I believe that the Commission must provide leadership and accountability by communicating our expectations for new reactor licensing reviews. Since NRC was established, Commission Policy Statements have been used to share our expectations for the staff or regulated community on high priority issues facing the agency. I think it makes sense for the Commission to issue a Policy Statement on the effectiveness, efficiency, and timeliness of new reactor licensing reviews. A Commission Policy Statement could address several key aspects of the agency's licensing work, including aggressive but achievable target schedules for the safety and environmental reviews of first-of-a-kind applications and subsequent reactor applications of the same design; the ability to apply regulatory findings and analyses from first-of-a-kind reviews to simplify subsequent reviews; innovative licensing approaches and techniques that will evolve over time to optimize reviews; and a risk-informed focus on safety and security.

I think we all recognize that this is a critical moment for the nuclear sector. I want to see NRC meet the moment.

Thank you, and I look forward to your questions.