

**Chair Hanson Remarks  
for ANS Winter Meeting  
November 13, 2023**

**Meeting Theme: Maintaining the Momentum**

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Good morning, everyone. Joe, thank you for the introduction. It's wonderful to be here in downtown DC at the ANS annual winter meeting.

I really like the theme for this year's Winter Meeting – "Maintaining the Momentum". It acknowledges we've already made some progress and that we need to keep it up.

**Advanced Reactors**

It is definitely an exciting time in the nuclear industry, with significant interest and investment in advanced reactors and fuels. With that interest comes a lot of pressure from various stakeholders. A lot of the challenges facing the nuclear industry are outside of the NRC's purview as a regulator. However, we have an important role to play – providing regulatory stability and integrity and ensuring the safety and security of nuclear material and protection of the environment.

After a few years of preparing for the advanced reactor applications, we're starting to see momentum build, and seeing more applications come in. We recently issued the final safety evaluation report and environmental impact statement for the Kairos Hermes molten salt test reactor in Tennessee. We were able to review that first-of-a-kind reactor ahead of schedule and within projected resources.

We're seeing applicants coming in for more pre-application engagement and submitting more topical reports and white papers. We're already seeing the benefits of that earlier and frequent engagement. I encourage applicants to come in early and often to the NRC.

When I spoke at the ANS 2021 annual meeting, I mentioned the staff was developing the Part 53 rulemaking. Since then, the staff has presented the Commission with a draft rule for our consideration. My position is in support of a single framework that assures regulatory predictability, commitment to technology inclusivity, incorporates risk-informed approaches, and maintains stakeholder confidence. I think the Commission is getting close to a decision, and I hope we can have direction back to the staff soon.

**International**

On the international stage, we're seeing positive gains with collaboration on these new designs. I want to continue to provide our support to other nations developing nuclear power or even countries with well-established programs. We have many vehicles for that support - through bilateral agreements like those we have with Poland and Ukraine. We have a bilateral agreement with Canada and several Memorandums of Understanding with the Canadian Nuclear Safety Commission to coordinate technical aspects of small modular reactor design

reviews. Others are using the US-Canada regulatory bilateral cooperation as a model for ways in which regulators can work together to improve review efficiency, particularly for standardized designs.

## Operating Fleet

While this momentum on advanced reactors builds, the NRC still needs to ensure the safety of the operating light water reactor fleet and timeliness on reviews of licensing actions.

I worry a bit that we've succumbed to some inertia on how we track our reviews. I'll use license amendment reviews because they are far and away the agency's most prolific type of licensing action. Our metrics for license amendments were previously based on a standard flat metric – one year for completion of review. In FY2024, we are looking at trying to change that metric based on actual estimates for review time. This will make our data more accurate by reflecting complexity and in turn assure that we aren't inflating our performance through simple reviews. That way we can direct the appropriate amount of resources into complex reviews. This is a new approach and will likely need adjustments as we progress – but it is a good example of how the agency is taking key steps to accurately track review performance, rather than relying on metrics that don't capture the complexities of our work.

We're changing the trajectory of our license renewal and subsequent license renewal reviews. Aging management issues for subsequent license renewals required more time and resources than expected and receiving more applications than we budgeted and planned for caused resource challenges with the environmental reviews. The NRC is evaluating the license renewal program, coordinating with stakeholders, and implementing short-term achievable efficiencies. We envision a license renewal program that has been enhanced and streamlined such that the safety and environmental reviews that will be completed with substantially fewer staff hours when compared with recent estimates. To achieve this goal, the agency has implemented several subsequent license renewal process improvements, and we are currently engaged through public meetings, workshops, Nuclear Energy Institute forums, and other venues to identify additional means to streamline our reviews. I'm focused on seeing that shift the momentum on these reviews. The most recent acceptance letter for a subsequent license renewal estimated 20,000 hours, which is 13% less than the last estimate and 17% less than the estimate before that. However, I will be watching the data closely to make sure that these executed changes show up in our performance metrics.

The NRC is coming up on our 50<sup>th</sup> anniversary – that's a half-century of experience. It's important for us, during this time of high interest and significant pressure, to maintain stakeholder confidence by sticking to our scientific and technical mission. We need to have high trust in our staff to complete the mission and high confidence in our technical capabilities at all levels of the agency so we can leverage the intellectual capital that we have to make better, smarter, more durable regulatory decisions.

## Recruit & Retain

To keep up that intellectual capital, we must invest in recruitment of new workers and retention of current staff. We are challenged here, competing with industry and others for highly

talented, technical people. We're starting to see a little momentum with our hiring despite the competitive market. We have hired over 300 new staff, out of 400-person goal. Once we get them in the door, we need to train and integrate them into our licensing and inspection activities. It takes some time to get them onboarded and up to speed.

While visiting nuclear facilities across the country, I try to also visit colleges and universities. I love to talk about the NRC and encourage students to consider a career in public service. Last week I visited Alabama A&M University, where the NRC has more than a 20-year recruiting relationship with the university. We currently have 13 Alabama A&M alumni working at the agency, including two who were hired through our inaugural entry-level developmental program.

In addition, we have refocused efforts on the University Nuclear Leadership Program. This program helps to create a diverse and skilled pipeline of talent for the agency. For those students in the audience, I encourage you to consider our intern and leadership programs.

We've re-initiated grants to our minority serving institutions program. We are also trying to find new ways to engage minority serving institutions. For example, as part of our Minority Serving Institutions Program, we have two NRC employees teaching nuclear-related courses as adjunct professors at the University of Puerto Rico in Mayaguez. The goal is for the NRC to help the university establish a Nuclear Engineering program. If this effort works well in Puerto Rico, we could help other universities in a similar manner.

To quote the writer Michael Korda, "One way to keep momentum going is to have constantly greater goals." I think the NRC is doing that, using technology as a force multiplier. We can't hire our way out, we also must focus on doing our job more efficiently, be innovative. We're learning more about how to gather the right data and use it to monitor and track trends. In general, we are seeing success in the use of dashboards, and MAP-X – an NRC mission analytics external portal, and other tracking mechanisms to better utilize the data we are getting as an agency. These tools are allowing us to make more agile, informed real-time decisions internally. They have also proved to be helpful in our communication with the public about our progress during major licensing reviews.

Another area where the NRC is trying to think bigger is with Artificial Intelligence. Earlier this year we issued our first Artificial Intelligence Strategic Plan, which will help us be better prepared to evaluate applications of AI by industry. To further build upon that effort, I've directed staff to also evaluate how it can use AI to improve our own internal processes and make them more efficient. I'm excited to see what the future holds for both industry and the NRC with the use of AI.

## Conclusion

With that I conclude my remarks. I sincerely appreciated the opportunity to speak with you today.