



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
WASHINGTON, D.C. 20555-0001

September 29, 2023

The Honorable Jeff Duncan  
Chairman, Subcommittee on Energy, Climate  
and Grid Security  
Committee on Energy and Commerce  
United States House of Representatives  
Washington, DC 20515

Dear Mr. Chairman:

On June 14<sup>th</sup>, 2023, the U.S. Nuclear Regulatory Commission appeared before the House Energy and Commerce Subcommittee on Energy, Climate and Grid Security at a hearing entitled, "Oversight of NRC: Ensuring Efficient and Predictable Nuclear Safety Regulation for a Prosperous America."

From that hearing, members forwarded questions for the hearing record. The responses to these questions for the hearing record are enclosed for Commissioner Bradley R. Crowell.

If I can be of further assistance, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read "E. Dacus", is written over a light blue rectangular background.

Eugene Dacus, Director  
Office of Congressional Affairs

Enclosures:  
As stated

cc: Representative Diana DeGette

## **Attachment 1—Additional Questions for the Record**

**The Honorable Bradley R. Crowell, Commissioner. U.S. Nuclear Regulatory Commission**

**The Honorable Cathy McMorris Rodgers**

1. Would you each provide for the record, your recommendations for ensuring and enabling staff leadership to work in service to policies Congress establishes?

**Response:** I concur with Chair Hanson's response. Additionally, I would also like to emphasize the important role of each individual Commissioner and the Commission as a whole to foster and maintain a high-level of staff leadership. The Commission must lead by example by speaking and acting as a collegial body responsible for overseeing the success of the agency. The Commission plays an important role in setting the overall cultural tone for the agency and for both inspiring and holding senior leadership accountable for preserving and enhancing staff focus, dedication, and morale. The experts, career staff at the NRC, are the heart of the agency and therefore deserve a level of support and leadership that empowers them to excel and succeed.

- a. Would you include in your recommendations how the Commission should measure or monitor the effectiveness of staff leadership?

**Response:** I concur with Chair Hanson's response and would also highlight the more intangible, but equally important, role of the Commission to act as a collegial body to lead by example and speak with a unified voice such that senior staff leadership clearly understands agency and Commission priorities to fully meet the NRC's mission and public expectations.

2. Recent NRC experience with advanced reactor licensing and development of new regulatory frameworks for advanced reactors has highlighted the importance of effective communication. Discussions with NRC applicants and licensees indicate that effective communication between applicants and NRC staff and management is critical to successful resolution of licensing questions. Ineffective communication between NRC and stakeholders has contributed to challenges encountered during the development of the 10 CFR Part 53 regulatory framework.

- a. What steps is the NRC taking to promote effective communication between the NRC and stakeholders including applicants, licensees, members of the public, and other stakeholders?

**Response:** Overall, I concur with Chair Hanson's response. However, I also believe there are areas of improvement for how the NRC communicates with various stakeholders, including applicants, licensees, and the public. For instance, I think

NRC can explore ways to more effectively manage expectations with all stakeholders, such as more clearly communicating goals, expected outcomes, and next steps following various engagement activities. With specific reference to communicating with the public, I would like to see the NRC adopt a proactive communications style that engages the public using an appropriate level of technical information and plain language such that members of the public can more easily understand what the NRC does, including more clearly explaining its various processes and procedures, and how the public can and should best engage with NRC staff.

- b. What is the value of allowing informal, non-public meetings between applicants and staff to facilitate more efficient, effective communication and licensing processes?

**Response:** In addition to concurring with the Chair's response, I would refer to the additional detail provided in my response to the previous question (2.a.).

- c. What should be done to increase informal communication?

**Response:** I concur with Chair Hanson's response. Additionally, with specific reference to improving communication with the public, the NRC needs to build the skill sets of existing employees and hire new staff who know how to effectively and proactively communicate with the general public by using plain language, leveraging effective communications channels, and improving on identifying and adopting best practices for "who," "how," and "when" to engage the public at large and/or relevant public interest groups.

- 3. In the Nuclear Energy Innovation and Modernization Act (NEIMA), Congress directed the agency to develop a new risk-informed, performance-based rulemaking to enable the timely and predictable licensing of advanced reactors. NRC staff provided a draft proposed rule to the Commission that the Nuclear Energy Institute and the U.S. Nuclear Infrastructure Council consider not viable.

- a. What was the staff's justification for providing an unusable rule to the Commission?

**Response:** Overall, I generally concur with Chair Hanson's response. While much of the stakeholder interaction and drafting of the draft proposed rule occurred prior to my joining the Commission, my understanding is that staff did their best to incorporate or address, to the extent practicable, the feedback received from the diverse set of stakeholders who engaged in various stakeholder workshops. The extensive and iterative engagement of stakeholders to help inform a draft proposed rule was a novel undertaking for the NRC and I think there were many lessons learned for improving on any similar rulemaking process going forward. Based on my understanding of the stakeholder engagement process, I believe one key area for

improvement was the effective setting and management of expectations with stakeholders for how engagement sessions would be structured, the extent to which public input would be considered in real-time, and how the process would ultimately conclude in advance of the staff completing the drafting process and submitting the draft proposed rule to the Commission. In the future, I believe such issues could be addressed by improving the two-way dialogue between NRC staff and stakeholders, including the critical step of NRC staff making their best effort to actively listen and substantively communicate with stakeholders regarding what feedback they intended to include or not include in the draft proposed rule and the rationale for doing so as soon as such information can be made available.

b. How much was spent to develop the proposed rule, both in dollars and FTE?

**Response:** Since 2019, the NRC has spent 36.9 FTE (\$7,283.7K) on NRC staff and \$2,077K in contractor support, respectively, to develop the Part 53 draft proposed rule.

c. How will the Commission remedy this situation and produce a useful rule in accordance with Congress' direction in NEIMA?

**Response:** Building on Chair Hanson's response, please be assured that I am carefully reviewing the draft proposed rule and believe the NRC will develop an effective framework that allows new and advanced reactor applicants to utilize a modernized regulatory process that appropriately prioritizes both safety and efficiency. I have included more background on my approach to reviewing the draft proposed rule in my response to your July 14, 2023, letter to me and my Commission colleagues. A copy of my September 14, 2023, response is publicly available on the NRC's website at <https://www.nrc.gov/docs/ML2326/ML23263A983.pdf>.

4. NRC applicants and licensees have reported that the quality of the NRC Project Manager responsible for a license application review or other regulatory review can have an outsized impact on the outcomes of the review. A high-quality project manager can facilitate an effective and efficient review while a poor-quality project manager may allow unnecessary delays or unproductive and distracting reviews by unfocused NRC staff. Some stakeholders have expressed concern that NRC project managers are not empowered to effectively manage technical staff and focus reviews on issues more important to safety.

a. What steps is NRC taking to improve project management, empower project managers to do their jobs and do them well, and ensure that all projects are assigned high quality project managers?

**Response:** I concur with Chair Hanson's response, which adequately captures current agency efforts to fully empower project managers.

- b. How are you incorporating industry accepted project management best practices and expertise?

**Response:** I concur with Chair Hanson's response, which adequately captures current agency efforts to ensure project managers have the skills, training, and resources necessary to effectively utilize project management best practices.

## **The Honorable Jeff Duncan**

1. The Committee is updating a bill to direct the NRC to evaluate the current environmental review process for reactors and identify areas where there are reasonable options for less burdensome assessments under NEPA.
  - a. What opportunity, beyond recent changes to NEPA, do you see to reduce duplicative or unnecessary environmental reviews to license reactors more efficiently?

**Response:** I concur with Chair Hanson's response and would expand upon the examples to improve efficiency in environmental reviews beyond the recent legislative changes to NEPA. Specifically, as Chair Hanson noted, in November 2021, the NRC staff provided to the Commission, for its consideration, a draft "Generic Environmental Impact Statement for Advanced Reactors" (ANR GEIS) and a draft proposed rule that would codify the generic findings of the ANR GEIS (SECY-21-0098). I am closely reviewing this paper and believe appropriately addressing this regulatory activity is crucial to streamlining the environmental review process for advanced reactor designs that fit within the parameters set in the draft GEIS. Additionally, Chair Hanson described the NRC staff's efforts to increase the use of memoranda of understanding with cooperating agencies, such as the Department of Energy, to reduce duplicative NEPA efforts on various projects. I believe that close coordination and collaboration with partner agencies, as applicable and appropriate, is essential to improving efficiency in environmental reviews for reactor licensing, and I applaud the NRC staff for their work in this area.

2. What authorities can Congress provide to improve the efficiency of NRC's decision-making on advanced reactors?

**Response:** I concur with Chair Hanson's response. However, while the NRC staff has not identified any additional authorities at this time, I have encouraged senior leadership and hiring managers to continue assessing the need for new authorities or hiring tools to ensure the agency is fully prepared to efficiently manage a future influx of advanced reactor applications. Specifically, new hiring authorities provided by Congress or approved by the Office of Personnel Management could be targeted to help the NRC better compete with the private sector to retain and recruit employees, within the currently constrained job market, employees with the technical skill sets needed for safely reviewing and licensing advanced commercial nuclear reactor technologies.

3. The NRC has yet to meet the cap NEIMA set for corporate support. For three years in a row, the NRC's fee-billable licensing and oversight work is below \$200M while the agency's budget requests continue to grow. The agency had \$92M in carryover in FY 2022 and asked for significant budget increases in FY 2023 and FY 2024.

- a. Whenever the agency overestimates its workload or total budget, the annual fee for operating reactors increases. How does the agency justify this as fair?

**Response:** I concur with Chair Hanson's response.

- b. Did the funding from licensing fees of the University Nuclear Leadership Program violate NEIMA restrictions? What is the justification for funding with licensing fees?

**Response:** I concur with Chair Hanson's response and furthermore believe the UNLP program provides meaningful benefits to licensees and the agency.

- c. Of the \$92M in carryover from 2022, how much was collected from taxpayers and how much from licensees?

**Response:** While the \$92M carryover balance pre-dates my tenure on the Commission, my understanding is that the \$92M carryover balance is the accumulation of carryover balances from prior fiscal years. The NRC's Chief Financial Officer has indicated that of this \$92M in carryover, approximately \$60M originates from fee-recoverable funding sources and the approximately \$32M balance from non-fee-recoverable funding sources.

- d. How much would the annual fee for operating reactors have decreased if the NRC had budgeted accurately without resulting in \$92M in carryover?

**Response:** Based on data from the NRC's Office of the Chief Financial Officer as included and contextualized in Chair's Hanson's response, the decrease would equal approximately \$350,000 per operating reactor.

- e. How did the NRC spend the \$92M in carryover from 2022?

**Response:** At present, the NRC has not expended all of the \$92M in carryover. Currently, the agency's carryover balance is allocated as follows:

| Amount<br>(In Millions) | Description                                                                |
|-------------------------|----------------------------------------------------------------------------|
| \$15.5                  | University Nuclear Leadership Program/Integrated University Program grants |
| 6.4                     | Commission carryover                                                       |
| 4.9                     | Fee recoverable operating reactor emergent needs                           |
| 3.6                     | Advanced reactor emergent needs                                            |

|               |                                                                                                             |
|---------------|-------------------------------------------------------------------------------------------------------------|
| 2.0           | Corporate support - space planning and renovations                                                          |
| 2.0           | International activities emergent needs                                                                     |
| 1.0           | Office of the Inspector General carryover                                                                   |
| 1.0           | Minority Serving Institution grants                                                                         |
| 0.6           | New reactors emergent needs                                                                                 |
| 0.4           | Ukraine supplemental appropriation carryover                                                                |
| 0.4           | Spent Fuel Storage and Transportation emergent needs                                                        |
| 0.1           | Nuclear Waste Fund carryover                                                                                |
| 0.1           | Agreement State oversight travel needs                                                                      |
| 0.1           | Miscellaneous emergent needs (\$40,000 for Nuclear Material Users and \$17,500 for Official Representation) |
| <b>\$38.1</b> | <b>Total</b>                                                                                                |

f. How much carryover does the NRC estimate for FY 2023?

**Response:** The NRC estimates the carryover balance at the end of FY 2023 will be approximately \$103M. Of this balance, approximately \$54M is anticipated to come from the beginning balance not used in FY 2023, approximately \$3M is anticipated to come from de-obligations of prior year funds not used in FY 2023, and the remaining \$46M is anticipated to come from unobligated FY 2023 funds, much of which is due to schedule changes driven by licensees, applicants, and potential applicants. The FY 2024 budget request proposes using \$27.1 million in carryover to offset the Nuclear Reactor Safety budget, which would reduce the estimated carryover from \$103M to approximately \$76M.

g. What actions is the agency taking to improve its fiscal discipline and comply with NEIMA?

**Response:** I concur with Chair Hanson's response and equally agree that the agency's use of financial data to inform its budget formulation process helps the NRC to continue to maintain needed fiscal discipline and compliance with NEIMA. Moreover, under the leadership of the NRC's new Chief Financial Officer, appointed in April 2023, I believe the NRC will steadily improve its budget planning and execution processes by working in close coordination with the Executive Director for Operations and relevant NRC division and program leadership.

4. The NRC has had an ongoing transformation effort for the last five years.

a. How much has NRC spent on transformation and innovation over the last five years?

**Response:** Chair Hanson's response provides helpful background and context for NRC transformation and innovation efforts over the past five years. Since I joined the Commission in August of 2022, I've looked at these various transformation and

innovation initiatives closely and believe much more can and needs to be done going forward to effectively improve agency culture and modernize agency practices in a manner and on a timeline sufficient for the agency to effectively and efficiently manage its current and expected increasing workload.

b. Please provide a list of the transformation and innovation goals and objectives.

**Response:** As Chair Hanson highlighted in his response, the NRC's high-level transformation and innovation goals, including:

Objective 1: Foster a healthy organizational culture in which the workforce is engaged, adaptable, and receptive to change and makes data-driven and evidence-based decisions.

Objective 2: Attract, develop, and maintain a high-performing, diverse, engaged, and flexible workforce with the skills needed to carry out the NRC's mission now and in the future.

c. What metrics does the NRC have in place to track progress toward the transformation goals and objectives?

**Response:** I concur with Chair Hanson's response, which accurately captures current NRC metrics in place to track progress toward agency established transformational goals and objectives. Additionally, I believe the agency would benefit from a periodic external review of its transformation and innovation goals, and related metrics, to provide a healthy external perspective and ensure maximum effectiveness of agency established goals.

d. Please provide a list of the innovations, efficiencies, and cost savings resulting from the transformation effort.

**Response:** I concur with Chair Hanson's response.

5. For the last three years, the NRC has billed less than \$200M for all of its oversight and licensing work, a small fraction of the NRC's budget.

a. What actions does NRC take to ensure its safe mission is balanced with the need for timely decision-making?

**Response:** I concur with Chair Hanson's response. However, I would add that this is an area appropriate for continued review and improvement as oversight and licensing workloads change and as new commercial nuclear technology applications evolve.

- b. What actions does the NRC take to ensure adequate resources are prioritized for licensing reviews to ensure those reviews are completed timely and on schedule?

**Response:** I concur with Chair Hanson's response regarding current NRC actions to ensure resource adequacy needed for timely licensing reviews. I would also add that this process should improve further with the anticipated adoption and utilization of the proposed Part 53 rulemaking for new and advanced reactors and the Advanced Reactor Content of Application Project (ARCAP) and related guidance for use in Part 50 and 52, and, later, Part 53.

- c. What metrics are in place to track the timeliness of licensing reviews?

**Response:** I concur with Chair Hanson's overview of existing agency metrics to track the timeliness of licensing reviews. With regard specifically to internal timeliness metrics, the NRC staff has significantly improved many of its internal project management protocols and associated metrics, particularly in the area of new and advanced reactors, and continues to develop new tools to enhance and track timeliness within all business lines across the agency.

- d. How does NRC leadership indicate a sense of urgency to completing:

- application reviews for advanced reactors?
- subsequent license extension reviews?
- power uprate reviews?
- other license amendment reviews for operating reactors?
- fuel facility licensing reviews?

**Response:** I concur with Chair Hanson's responses with respect to the five areas listed above. I would also add that it is the role of the Commission to ensure NRC leadership is fully implementing these efforts including through clear, consistent guidance to career NRC leadership, and through holding senior staff accountable as appropriate in fulfilling the full scope of their role as senior agency leaders.

- e. The NRC issued a decision on the Kairos Hermes non-power reactor in 18 months. How long will it take to reach a decision on an advanced power reactor?

**Response:** I concur with Chair Hanson's response. I would also add that this process should further improve with the anticipated adoption and utilization of the proposed Part 53 rulemaking for new and advanced reactors and the Advanced Reactor Content of Application Project (ARCAP) and related guidance for use in Part 50 and 52, and, later, Part 53.

- f. How long does it generally take for the Commission to develop and finalize a policy statement?

**Response:** I concur with Chair Hanson's response.

6. What steps will the Commission take in lieu of Commissioner Baran's proposed policy statement on timely decision-making?

**Response:** Commissioner Baran's proposed policy statement on timely decision-making, "Establishing Commission Expectation for the Effectiveness, Efficiency, and Timeliness of New Reactor Reviews," remains pending before the Commission for its consideration (COMJMB-23-0001). The Commission therefore can still take action on this important proposal. As such, on July 26, 2023, I voted on Commissioner Baran's proposed policy statement. My vote is publicly available on the NRC website (<https://www.nrc.gov/reading-rm/doc-collections/commission/comm-secy/2023/index.html>). Currently, I am the only Commissioner to have voted on Commissioner Baran's proposed policy statement. In my vote, I expressed my openness to considering complementary proposals, including the proposal announced by Commissioners Caputo and Wright during the subcommittee hearing. Subsequently, on August 29, 2023, Commissioners Caputo and Wright issued an action memorandum on measuring NRC success. I am closely evaluating this well-intentioned proposal and considering the best path forward for how to improve accountability and timely decision-making at the NRC.

7. Surveys of NRC staff over the past 10 years have shown a relatively steady decline in NRC staff satisfaction with the workplace and management. What do you believe are the root causes for declining employee satisfaction at the NRC, and what steps are you taking to improve NRC staff morale and culture?

**Response:** With regard to the root causes for declining employee satisfaction at the NRC, I acknowledge Chair Hanson's response given his longer tenure on the Commission, including his current service as Chair.

As for taking steps to improve NRC staff moral and culture, I have made it a priority during my first year on the Commission to work closely with my fellow Commissioners to build relationships and forge common ground to address morale and cultural issues using a unified voice from the Commission. I have prioritized this same framework with my colleagues on policy issues as well. As a Commission-led agency, the single highest priority to beneficially impact agency morale, culture, and effectiveness, is to work collaboratively as leaders and operate under a unified voice and vision as much as possible. In short, for a Commission-led agency, leading by example is paramount.