

United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

WASHINGTON, DC 20510-6175

Courtney Taylor, *Democratic Staff Director*
Adam Tomlinson, *Republican Staff Director*

November 1, 2023

The Honorable Christopher T. Hanson
Chairman
US Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852

Dear Chairman Hanson,

We request you immediately take steps to improve the management and oversight of the Nuclear Regulatory Commission's (NRC) review and approval process to extend the licensed operating period for nuclear reactors, known as Subsequent License Renewal (SLR). The NRC's current SLR process increases the licensed operation of a nuclear power plant from 60 years to 80 years.

The average age of today's nuclear power plants is 41 years. More than 90 reactors have received an initial license renewal to extend from the original 40 years of approval for operation to 60 years.¹ Despite the age of our nation's reactors, plant owners continue to operate the units at historically high levels of performance and safety. Extending the life of existing nuclear power plants is critical to support the reliability and affordability of the baseload generation that powers our economy. It is also an imperative for utilities to achieve their voluntary commitments to reduce greenhouse gas emissions.

Electric utility decarbonization goals combined with state and federal policies and financial incentives are driving nuclear power plant owners to apply for an SLR. The nuclear industry now expects that more than 90 percent of today's operating reactors plan to extend operation from 60 years to 80 years.² While the NRC's SLR workload is just beginning, early signs show the NRC does not have the capacity or management structure to ensure efficient, timely, and affordable SLR reviews.

The Commission's misguided 2022 reversal of previously issued SLRs resulted in a cascading delay that impedes the ability for nuclear utilities to make long-term planning decisions and support those decisions with necessary investments.³ As a result of the Commission's about-face, the NRC staff was directed to update its "Generic Environmental Impact Statement for License Renewal of Nuclear Power Plants" (LR GEIS). SLR applicants must either wait for that LR

¹ Nuclear Regulatory Commission, Background on Subsequent License Renewal, <https://www.nrc.gov/reading-rm/doc-collections/fact-sheets/subsequent-license-renewal.html> (last visited October 30, 2023).

² Doug True, *NEI Survey Shows Even More Interest in Nuclear After Major Policy Actions*, Nuclear Energy Institute, April 6, 2023, <https://www.nei.org/news/2023/nei-survey-shows-even-more-interest-in-nuclear>.

³ Adam Stein and Rani Franovich, *Blog: NRC revises previously issued subsequent license renewal for existing nuclear power plants*, The Breakthrough Institute, February 25, 2022, <https://thebreakthrough.org/blog/blog-nrc-revises-previously-issued-subsequent-license-renewal-for-existing-nuclear-power-plants>.

GEIS to be updated or provide a site-specific environmental review. The NRC staff will then review the site-specific review and issue a site-specific Supplemental Environmental Impact Statement (SEIS) to address the issues that would otherwise be covered in the LR GEIS. At this point, both the LR GEIS and site-specific paths are problematic.

On April 5, 2022, the Commission directed the NRC staff to complete the LR GEIS update within 24 months, noting that “[t]he staff should continue to seek opportunities to accelerate the schedule.”⁴ Contrary to the Commission’s direction, that schedule is now slipping. The submittal of the LR GEIS to the Commission is currently delayed from December 18, 2023 to March 7, 2024.⁵ The Commission must then review and approve the staff proposal—another step to complete the process of finalizing the LR GEIS. Following the NRC’s practices, the NRC staff is also working to concurrently update associated staff guidance. It remains to be seen if that staff guidance is on track to be updated on the LR GEIS schedule or if there will also be delays in that portion of the staff’s work.

Licensees are facing unpredictable reviews separate from the delayed LR GEIS development. On October 13, 2023, the NRC staff informed a licensee of a three-month delay in the issuance of a draft EIS. According to the NRC staff, the delays are the result of “staff resource challenges driven by high-priority work, including initial license reviews” and “unplanned” receipt of SLRs.⁶ This follows a similar delay for a site-specific SEIS at another site in August 2023.⁷

The staff’s assertion that the NRC did not anticipate SLRs is concerning. Well over a year ago, new federal tax credits were enacted into law regarding the continued operation of nuclear power plants. The NRC should have immediately recognized that the new tax policy could affect SLR workload.

The aforementioned delays are not isolated examples. In fact, the prolonged review timelines appear to be the expectation. The NRC’s current baseline estimate for SLR review is approximately 23,000 hours of staff time and approximately \$7 million.⁸ This baseline estimate significantly exceeds the average number of staff hours to complete recent initial license renewals.⁹ The SLR review schedule is also not aligned with the NRC staff’s goal “to streamline the [SLR] review process and complete its reviews within 18 months of docketing, instead of the previous goal of 22 months [for initial renewals].”¹⁰

⁴ Nuclear Regulatory Commission Staff Requirements Memorandum “Staff Requirements – SECY-22-0024-Rulemaking Plan for Renewing Nuclear Power Plant Operating Licenses – Environmental Review,” April 5, 2022, <https://www.nrc.gov/docs/ML2209/ML22096A035.pdf>.

⁵ Nuclear Regulatory Commission, License Renewal Generic Environmental Review, <https://www.nrc.gov/reactors/operating/licensing/renewal/sled.html> (last visited October 30, 2023).

⁶ The Energy Daily, *NRC says Duke’s Oconee second license renewal environmental review is delayed*, S&P Global, October 18, 2023.

⁷ *Id.*

⁸ Nuclear Regulatory Commission, Status Report on the Licensing Activities and Regulatory Duties of the US Nuclear Regulatory Commission, April 1, 2023 – June 30, 2023, <https://www.nrc.gov/docs/ML2319/ML23191A892.pdf>.

⁹ From 2015-2019, the average number of staff hours to complete initial license renewals was approximately 21,390 hours.

¹⁰ Based on information provided to the Senate Environment and Public Works Committee in response to Questions for the Record, the average length of review time for the first three SLRs was approximately 23.5 months.

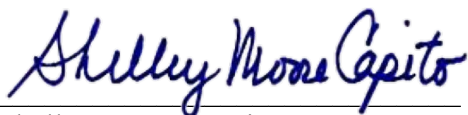
The Commission is moving in the wrong direction. It is troubling that the NRC is continuing a trend in which the average length of review progressively takes longer and costs more. This runs counter to a logical learning curve which would show increased efficiencies with greater experience.

To help us better understand how the NRC is addressing the management of the SLR review and approval process, please respond to the following questions:

1. At the Environment and Public Works Committee NRC oversight hearing on April 19, 2023, you were asked about the time and resources required for SLR. You stated, “I recently have become aware of this [time and resource] discrepancy in the hours myself. I am focusing on it and working with the career staff to find out what the issues are here.”¹¹ Since that hearing, what have you done to identify the issues and what action have you taken to resolve the discrepancy in SLR review time and costs?
2. What specific steps is the Commission, as a whole, taking to ensure the NRC’s SLR review and approval process is efficient, timely, predictable, and affordable?
3. What specific steps, such as implementing process improvement methodologies, are the NRC staff taking to ensure the NRC’s SLR review and approval process is efficient, timely, predictable, and affordable?
4. Will you direct the Executive Director for Operations and other senior NRC staff to establish more ambitious milestone schedules and cost estimates that reflect increased efficiency aligned with the organization’s experience with license renewal?
5. What unique and different items are considered as part of the NRC’s SLR review and approval process compared to the initial license renewal process? What unique and different items are considered that are not covered in a licensee’s aging management program?

We urge you to provide additional leadership and establish guidance in improving the NRC’s overall performance. We look forward to your response.

Sincerely,



Shelley Moore Capito
Ranking Member
Environment & Public Works Committee



Pete Ricketts
Ranking Member
Subcommittee on Clean Air, Climate, and
Nuclear Safety

¹¹ *The Nuclear Regulatory Commission’s Proposed Fiscal Year 2024 Budget*, 118th Cong. (April 19, 2023), (testimony of Chair Christopher Hanson), https://www.epw.senate.gov/public/_cache/files/f/a/faa1fdee-b869-4888-bf76-5ba6d8b317bb/7E54B634C0E27EA505434A976688E43E.spw-04192023-nrc-2024-budget.pdf.

Cc:

The Honorable David A. Wright
Commissioner
US Nuclear Regulatory Commission

The Honorable Annie Caputo
Commissioner
US Nuclear Regulatory Commission

The Honorable Bradley Crowell
Commissioner
US Nuclear Regulatory Commission