

United States Senate

August 30, 2022

The Honorable Christopher T. Hanson
Chairman
U.S. Nuclear Regulatory Commission
Mail Stop O-16 B33
Washington, DC 20555-0001

Dear Chairman Hanson,

We write regarding the proposed Nuclear Regulatory Commission (NRC) nuclear power plant decommissioning rule — “Regulatory Improvements for Production and Utilization Facilities Transitioning to Decommissioning.”¹ We share the NRC’s goal of providing a safe, effective, and efficient decommissioning process for nuclear plants. But we are concerned that the proposed rule falls short, especially in its failure to require NRC approval of a licensee’s post-shutdown decommissioning activities report (PSDAR); its incorrect assertion that the NRC’s “Backfit Rule” applies to decommissioning nuclear plants; and its premature termination of emergency preparedness requirements.

PSDAR Approval

If the NRC truly intends to enhance “overall regulatory transparency and openness regarding decommissioning” through the proposed rule,² then the Commission must require formal PSDAR approval. A PSDAR “consists of the licensee’s proposed decommissioning activities and schedule through license termination, a discussion of the reasons for concluding that the environmental impacts associated with the proposed site-specific decommissioning activities will be bounded by appropriate previously issued environmental impact statements, and a decommissioning cost estimate for the proposed activities.”³ In 1988, under its final rule titled “General Requirements for Decommissioning Nuclear Facilities,” the NRC required

¹ *Regulatory Improvements for Production and Utilization Facilities Transitioning to Decommissioning* (hereinafter “2022 Proposed Rule”), Nuclear Regulatory Commission, 87 Fed. Reg. 12254 (Mar. 3, 2022), <https://www.federalregister.gov/documents/2022/03/03/2022-03131/regulatory-improvements-for-production-and-utilization-facilities-transitioning-to-decommissioning>.

² *Id.* at 12295.

³ *Id.* at 12302.

decommissioning plan approval as part of the nuclear power plant licensing process.⁴ But in 1996, when the NRC revisited the issue in its final rule titled “Decommissioning of Nuclear Power Plant Reactors,” the NRC did away with the requirement that it approve a PSDAR.⁵ Through the proposed rule, the NRC should now restore a PSDAR-approval requirement, which would constitute a licensing action that carries with it two important safeguards: an up-to-date environmental review and meaningful public hearing rights.

Under the proposed rule, although a PSDAR must include an environmental-impact evaluation, including a discussion of whether decommissioning activities will be bounded by previously issued environmental impact statements, licensees can rely on old environmental reviews—some that may date back to a plant’s original licensing or license amendment decades ago.⁶ These potentially dated environmental snapshots could guide a decommissioning process that might last another sixty years. A safe and effective decommissioning process must be guided by a current environmental review.

The proposed rule should also address the 1996 rule’s shortcomings regarding public participation in the decommissioning process. Under the 1988 rule, the public had the opportunity to request “a full and fair hearing” on a decommissioning plan through the NRC’s “Agency Rules of Practice and Procedure.”⁷ A hearing under those rules would be conducted by an administrative law judge, with rights to appeal an adverse decision to the full Commission.⁸ But under the 1996 rule, the NRC would only hold “a public meeting concerning the PSDAR in the vicinity of the plant,”⁹ with none of the adjudicatory rights available under the 1988 rule. The adjudicatory rights available under the 1988 rule enabled individuals and entities affected by the NRC’s approval of a PSDAR to request and fully participate in a hearing with respect to the resolution of admitted contentions regarding PSDAR approval, including allowing affected parties to provide evidence.¹⁰ Following the 1996 rule, communities are now left only with public meetings during which they can provide comments to which the NRC is not required to respond. Additionally, because the Commission currently is not required to approve a PSDAR or evaluate it beyond confirming completeness, no opportunity for the Commission to modify a PSDAR to reflect public input exists. When it comes to nuclear power plant decommissioning

⁴ *General Requirements for Decommissioning Nuclear Facilities*, 53 Fed. Reg. 24018, 24055 (June 27, 1988), https://archives.federalregister.gov/issue_slice/1988/6/27/24011-24056.pdf#page=8.

⁵ *Decommissioning of Nuclear Power Reactors*, 61 Fed. Reg. 39278, 39279 (July 29, 1996), <https://www.govinfo.gov/content/pkg/FR-1996-07-29/html/96-19031.htm>.

⁶ *2022 Proposed Rule*, 87 Fed. Reg. at 12291, <https://www.federalregister.gov/documents/2022/03/03/2022-03131/regulatory-improvements-for-production-and-utilization-facilities-transitioning-to-decommissioning>.

⁷ U.S. Nuclear Regulatory Commission, *The Hearing Process*, <https://www.nrc.gov/about-nrc/regulatory/adjudicatory/hearing-pro.html>.

⁸ *Id.*

⁹ *Id.* at 12259, <https://www.federalregister.gov/documents/2022/03/03/2022-03131/regulatory-improvements-for-production-and-utilization-facilities-transitioning-to-decommissioning>.

¹⁰ U.S. Nuclear Regulatory Commission, *The Hearing Process*, <https://www.nrc.gov/about-nrc/regulatory/adjudicatory/hearing-pro.html>.

and all the safety and environmental concerns it implicates, the public should have the opportunity to a full and fair hearing, not just a public meeting.

Formal NRC approval of a PSDAR should be the bare minimum of public accountability. Communities surrounding decommissioning nuclear power plants deserve to know that the agency charged with ensuring the safety of nuclear power plants and their environs has conducted a full environmental and safety evaluation of a plant site based on the latest science and plant circumstances. This is especially so given that our understanding of issues such as toxic chemical exposure and climate impacts has advanced significantly over time.

The public also is entitled to provide its valuable input on emergency planning, workforce and local transition, and other important decommissioning issues *before* the process begins. The current process postpones the licensing action, environmental review, and opportunity for a hearing until a licensee submits its License Termination Plan at the very end of the decommissioning process—*after* all key decisions have been made, the licensee has completed the vast majority of the decommissioning work, and the decommissioning trust fund may have been entirely expended. That is unacceptable and potentially poses a risk to public safety.

By failing to provide communities with the opportunity to provide meaningful feedback on the decommissioning process before it commences, the NRC is missing a critical opportunity to instill public confidence and trust in it. For example, public outrage over the intention of Holtec International LLC (Holtec)—the owner of the Pilgrim Nuclear Power Station (Pilgrim)—to dump one million gallons of irradiated water into Cape Cod Bay demonstrates the importance of providing communities with an opportunity to meaningfully weigh in early on in the decommissioning process.¹¹ Massachusetts State Senator Susan Moran explained it well when she said: “Opportunity for meaningful public input is vital. Part of what was so alarming about Holtec’s announcement that they would release [one] million gallons of radioactive waste into Cape Cod Bay is that it came without an opportunity for public input or any measure of public education as to what that really means.”¹² The NRC might have avoided this controversy if it had afforded the Pilgrim community a meaningful opportunity to engage on the decommissioning process before it began and conveyed to the public that it had thoroughly reviewed and approved the decommissioning plans.

Additionally, providing communities with the opportunity to weigh in at the start of the decommissioning process can empower them to better ensure that they are protected from the risks associated with decommissioning. For example, when a license transfer process granted the Commonwealth of Massachusetts the opportunity to negotiate a settlement agreement with Holtec for the Pilgrim decommissioning, it resulted in critical environmental, public safety, and financial protections. Massachusetts was able to ensure that Holtec would follow its environmental and public health protection laws. According to Seth Schofield, Senior Appellate

¹¹ David R. Smith, *Rally to Stop Pilgrim Plant Wastewater Discharge Draws Together Businesses, Activists*, WickedLocal.com (Feb. 5, 2022), <https://www.wickedlocal.com/story/old-colony-memorial/2022/02/05/plymouth-rally-held-prevent-holtec-releasing-wastewater-bay/6648851001/>.

¹² *Q & A Nuclear Decommissioning Hearing*, Massachusetts State Senator Susan L. Moran (May 6, 2022), on file with author.

Counsel in the Massachusetts Attorney General’s Office, the settlement agreement was able “to remedy shortcomings in the NRC’s regulatory scheme and to create certainty about the application of important state law requirements.”¹³

Massachusetts secured these decommissioning-related benefits through Pilgrim’s license transfer process—a process that is not always available to states and their communities. The NRC should require formal approval of PSDARs so that all communities with decommissioning power plants — not just those that happen to be going through a license transfer — will have the opportunity to weigh in on the decommissioning process through public hearings and, if necessary, an adjudicatory process.

The “Backfit Rule”

The proposed rule requests comment on the question of whether requiring NRC approval of a PSDAR would violate the Commission’s Backfitting regulation, 10 CFR 50.109 (the “Backfit Rule”). First, we do not believe that the Backfit Rule even applies to decommissioning nuclear reactors. The proposed rule seeks to “clarify” how the NRC applies the Backfit Rule to a decommissioning nuclear plant, but fails to tie the Backfit rule to the decommissioning process in the first place. As the proposed rule itself recognizes, the “[t]he Backfit Rule’s definition of ‘backfitting’ uses terms associated with the design, construction, and operation of a facility rather than with its decommissioning.”¹⁴ Additionally, as Commissioner Baran has noted, “in 1998, the staff believed it was necessary to amend the Backfit Rule through rulemaking to apply it to decommissioning nuclear power plants.”¹⁵ And as Commissioner Baran further explained, the proposed rule “relies on a tortured reading of the Backfit Rule to conclude that dismantling a power reactor or maintaining a spent fuel pool or dry cask storage pad qualifies as ‘operating’ a nuclear power plant. This is disingenuous; a permanently shutdown reactor is obviously not an operating reactor. That’s the whole rationale for proceeding with a power reactor decommissioning rulemaking.”¹⁶ For the Commission to decide to apply the Backfit Rule to decommissioning reactors would be a conscious choice to change current regulations—not simply adhere to them—and would expand the remit of the Backfit Rule.

Second, should the NRC arbitrarily decide to apply the Backfit Rule to decommissioning reactors, requiring the Commission to approve a PSDAR would not violate it. We reject the NRC

¹³ *Issues Facing Communities with Decommissioning Nuclear Plants: Hearing Before the Subcomm. on Clean Air, Climate, and Nuclear Safety of the S. Comm. On the Env. and Pub. Works*, 117th Cong. (2022) (test. of Sr. Appellate Counsel Seth Schofield of Mass. Att’y General’s Office),

https://www.epw.senate.gov/public/_cache/files/d/0/d0b09148-0c0c-4314-bbab-bc51050de6b7/BCEA6215B9C4DECD52520B0AD14B7480.05-06-2022-schofield-testimony.pdf.

¹⁴ 2022 Proposed Rule, 87 Fed. Reg. at 12296 <https://www.federalregister.gov/documents/2022/03/03/2022-03131/regulatory-improvements-for-production-and-utilization-facilities-transitioning-to-decommissioning>.

¹⁵ Commissioner Baran’s Comments on SECY-18-0055, *Proposed Rule: Regulatory Improvements for Production and Utilization Facilities Transitioning to Decommissioning* at 14 (Aug. 9, 2021), <https://www.nrc.gov/docs/ML2123/ML21230A313.pdf>, citing SECY-98-253 (ADAMS Accession No. ML992870107).

¹⁶ *Id.*

staff's conclusion that there "there is currently no indication that requiring approval of a PSDAR has any substantial impact on the public health and safety."¹⁷ As discussed above, NRC approval of a PSDAR would provide the public with their only opportunity to weigh in on the decommissioning process—and its potential impacts on their health and safety—before it begins. Local residents have deep insight into relevant health and safety considerations unique to their communities that they can bring to the process. Likewise, by not requiring PSDAR approval, the NRC would be withholding its own expertise on nuclear safety, plant operations, and ensuring that a decommissioning plan supports public safety.

Emergency Planning Requirements

The NRC has an obligation to ensure that communities surrounding decommissioning nuclear plants are secure in the knowledge that if a nuclear accident were to occur, they would become aware of, and be able to respond to, it.¹⁸ The proposed decommissioning rule fails to meet that fundamental, public-safety obligation. Approximately ten months (for boiling water reactors) or sixteen months (for pressurized water reactors) after a reactor ceases operations, the proposed rule eliminates certain emergency preparedness requirements that apply while spent fuel is still in spent fuel pools, including public notifications and alert systems,¹⁹ emergency planning zones,²⁰ and dedicated radiological offsite emergency planning.²¹

Without dedicated radiological offsite emergency planning, communities have only "all-hazards planning," which the Federal Emergency Management Agency (FEMA) has argued does not sufficiently address the unique requirements of radiological emergency planning.²² FEMA has also expressed concern that its offsite response organizations "could be challenged to effectively protect the health and safety of the public using an ad hoc [emergency planning] construct."²³ Dedicated radiological emergency planning is more effective than all-hazards planning. If the NRC is serious about meeting its obligations to keep communities around nuclear power plants safe, emergency preparedness requirements must remain in place until spent fuel is moved out of spent fuel pools and into dry cask storage.

The risk of a zirconium fire in a spent fuel pool is illustrative. Although that risk is lower by the time a plant reaches decommissioning level 2—that is, "sufficient decay of fuel in the spent fuel pool (SFP) such that it would not reach ignition temperature within 10 hours under adiabatic

¹⁷ 2022 *Proposed Rule*, 87 Fed. Reg. at 12302 <https://www.federalregister.gov/documents/2022/03/03/2022-03131/regulatory-improvements-for-production-and-utilization-facilities-transitioning-to-decommissioning>.

¹⁸ NUREG-0396/EPA 520/1-78-016 (Dec. 1978) at I-2, <https://www.nrc.gov/docs/ML1021/ML102150502.pdf>.

¹⁹ 2022 *Proposed Rule*, 87 Fed. Reg. at 12275 <https://www.federalregister.gov/documents/2022/03/03/2022-03131/regulatory-improvements-for-production-and-utilization-facilities-transitioning-to-decommissioning>

²⁰ *Id.* at 12275-76.

²¹ *Id.* at 12273-74.

²² Letter from Michael S. Casey, Director, Technological Hazards Division, FEMA to NRC (July 8, 2019) (ADAMS Accession No. ML19189A318), <https://www.nrc.gov/docs/ML1918/ML19189A318.pdf>.


²³ *Id.*


heatup conditions (i.e., a complete loss of SFP water inventory with no heat loss)”²⁴—under the proposed rule, the potential for a devastating, high-consequence event remains. Our communities must be prepared for that type of disaster. Yet the proposed rule leaves it to communities to establish—and pay for—their own emergency plans. In the case of communities surrounding Pilgrim, Holtec was reported to have provided them with approximately \$2 million to fund evacuation plans, staff, and training prior to the NRC’s approval of Holtec’s request to eliminate the plant’s emergency planning requirements.⁸ It is unfair and burdensome for the NRC to shift away from licensees and onto FEMA and state and local responders the emergency planning costs that apply while spent fuel is still in spent fuel pools.

In preparing the final decommissioning rule, we urge the NRC to take into account all the important issues we have raised in this letter, as well as the comments of local communities and safety experts. This rulemaking presents a critical opportunity to restore the public’s trust in the Commission’s ability to prioritize community safety over efficiency. By requiring formal NRC approval of PSDARs and maintaining emergency planning requirements until all spent fuel is moved into spent fuel pools, the Commission can take a meaningful step in that direction, promote transparency, and protect public safety.

Thank you for your consideration of these concerns, and we appreciate your engagement on this matter. If you have any questions, please contact Hannah Vogel or Paige Rodrigues in Senator Markey’s office at 202-224-2742.

Sincerely,


Edward J. Markey
United States Senator


Elizabeth Warren
United States Senator

²⁴ 2022 Proposed Rule, 87 Fed. Reg. at 12254, <https://www.federalregister.gov/documents/2022/03/03/2022-03131/regulatory-improvements-for-production-and-utilization-facilities-transitioning-to-decommissioning>.

²⁵ Christine Legere, *Panel to Hear Arguments about Pilgrim’s Emergency Zone*, Cape Cod Times (Jan. 20, 2020), <https://www.capecodtimes.com/story/news/2020/01/20/panel-to-hear-arguments-about/1860118007/>; *Holtec Decommissioning International, LLC, Pilgrim Nuclear Power Station*, 84 Fed. Reg. 70574 (Dec. 23, 2019), <https://www.federalregister.gov/documents/2019/12/23/2019-27658/holtec-decommissioning-international-llc-pilgrim-nuclear-power-station>; 2022 Proposed Rule, 87 Fed. Reg. at 12275-12276, <https://www.federalregister.gov/documents/2022/03/03/2022-03131/regulatory-improvements-for-production-and-utilization-facilities-transitioning-to-decommissioning>.