May 4, 2026

**Subject:** Comment on Proposed Rule; NRC Reviews of Reactor Designs Previously Authorized by U.S. Department of Energy or Department of War [Docket ID NRC-2025-1503].

The Breakthrough Institute (BTI) appreciates the opportunity to comment on the Nuclear Regulatory Commission's proposed rule: *Reviews of Reactor Designs Previously Authorized by U.S. Department of Energy or Department of War*.[1] BTI is an independent 501(c)(3) global research center that advocates for appropriate regulation and oversight of nuclear reactors to enable the new and continued use of safe and clean nuclear energy. BTI acts in the public interest and does not receive funding from industry.

Appropriate collaboration between the Nuclear Regulatory Commission (NRC), Department of Energy (DOE), and Department of War (DOW) can provide value to commercial licensing and overall benefits to society. Enabling rapid testing and iterating of innovative nuclear technologies through the DOE and DOW also enables safer and more robust commercial designs for NRC licensing.[2] The DOE/DOW review processes maintain flexibility to evaluate research and test reactors that are trying to answer important safety and operational questions, and are often limited in scope and duration.

DOE/DOW authorization and NRC licensing serve fundamentally different institutional functions, which makes it challenging to map DOE/DOW authorization directly to NRC licensing requirements. Due to the flexibility required to accommodate a wide range of potential designs and projects, inputs from authorizations will be inherently inconsistent in structure and scope and, therefore, nearly impossible for the NRC to state categorically in rule text what information from any DOE/DOW-authorized design would be acceptable for any future NRC applicant or reactor design. NRC coordination with DOE and DOW should therefore focus on improving the

[1] Reviews of Reactor Designs Previously Authorized by U.S. Department of Energy or Department of War, 91 Fed. Reg. 16,584, proposed April 2, 2026, https://www.federalregister.gov/documents/2026/04/02/2026-06414/nrc-reviews-of-reactor-designs-previously-authorized-by-us-department-of-energy-or-department-of-war

[2] Spencer Toohill and Adam Stein, The Breakthrough Institute, *Making DOE's Nuclear Reactor Pilot Program Work*, https://thebreakthrough.org/issues/nuclear-energy-innovation/making-does-nuclear-reactor-pilot-program-work

usability, transparency, and transferability of relevant data and information—not on making NRC directly adopt DOE/DOW authorization decisions.

The proposed rule is best understood as a modest clarification, not a substantive transfer of licensing authority or a "rubber stamp" pathway. The proposed amendments would allow applicants to reference relevant information from prior DOE or DOW authorizations and associated testing, but they would still require applicants to identify how attributes of the prior authorization satisfy NRC regulations. The proposed text therefore preserves the NRC's responsibility to make its own licensing findings under the applicable regulatory framework.

BTI's principal concern is that the NRC has not shown why this clarification requires codification in the CFR rather than guidance, such as a Regulatory Issue Summary (RIS) or comparable staff guidance. The NRC could already consider relevant data, testing, analyses, and operating experience where such information supports findings under NRC requirements. If the NRC proceeds with a final rule, the NRC should therefore explain the concrete regulatory need for codification and utilize guidance to clarify that the amendments do not create any presumption of sufficiency, evidentiary preference, or expedited review track based solely on DOE or DOW involvement.

BTI submits these comments to support clear, legally durable, and administrable implementation of the NRC's statutory responsibilities. BTI recommends the following:

1. Explain why codification is necessary in a final rule, or issue a RIS instead of a rule;
2. Preserve the limited scope of the proposed rule in guidance; and
3. Coordinate across Parts 50, 52, 53, and 57.

## The NRC Should Better Explain Why Codification is Necessary

Executive Order 14300 directed the NRC to establish an expedited pathway for reactor designs that DOE or DOW have tested and that have demonstrated the ability to function safely:

> *Establish an expedited pathway to approve reactor designs that the DOD or the DOE have tested and that have demonstrated the ability to function safely. NRC review of such designs shall focus solely on risks that may arise from new applications permitted by NRC licensure, rather than revisiting risks that have already been addressed in the DOE or DOD processes.*[3]

The proposed regulatory text, however, is appropriately narrower than that policy framing. It does not direct the NRC to accept DOE or DOW authorization decisions as substitutes for NRC findings. Instead, it allows an applicant to include relevant information from a previously authorized and tested design, while requiring the applicant to identify how attributes of the authorization satisfy NRC regulations. The unofficial redline adds the following provisions to Parts 50 and 53, respectively:[4]

> *The application includes consideration of relevant information gathered from a design that has been previously authorized by the Department of Energy or the Department of Defense as a utilization facility and that has been tested and has demonstrated the ability to function safely. Any reference to such a design must identify how attributes of the authorization satisfy NRC regulations.*
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> *The bases for this demonstration may include consideration of relevant information gathered from a utilization facility that has been previously authorized by the Department of Energy or the Department of Defense and which has been tested and has demonstrated the ability to function safely. Any reference to such a design must identify how attributes of the authorization satisfy NRC regulations.*

That clarification is useful and aligned with the NRC's statutory obligations, but the NRC could *already* consider relevant information from prior DOE or DOW testing and operating experience under Parts 50, 52, and Part 53, just as it could consider relevant information from other sources, such as analyses, programs, tests, where that information was relevant to NRC licensing findings.

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[3] Executive Order 14300, *Ordering the Reform of the Nuclear Regulatory Commission*, Section 5(d), May 29, 2025.

[4] Unofficial Redline Rule Language for the Proposed Rule—NRC Reviews of Reactor Designs Previously Authorized by U.S. Department of Energy or Department of War, NRC-2025-1503; RIN 3150-AL60, ML25301A002.

The proposed rule maintains the flexibility that already exists under 10 CFR 50.43(e)(1)(i) and (e)(1)(2) and 10 CFR 53.440(a)(1). The proposed rule largely codifies an evidentiary practice that the NRC already had authority to follow, responding principally to EO 14300 rather than to a clearly identified regulatory barrier.

The proposed rule clearly signals that this is an eligible pathway for applicants, allows sufficient flexibility for applicants, and also maintains the NRC's clear independence in making safety determinations. A plain reading of the unofficial redline of the rule language for the proposed rule, appropriately, does not indicate that this rulemaking creates an expedited pathway for previous DOE or DOW authorizations. The revisions also correctly place the burden on the applicant to demonstrate that it understands its own technology, possesses adequate information, and can demonstrate how that information satisfies NRC requirements. The practical benefit of this rule will stem from clarity that the NRC will accept relevant information from DOE and DOW testing and the subsequent supporting regulatory guidance, not additional changes to the rule itself.

The Federal Register notice states that the NRC expects cost savings for applicants and the agency, but also explains that those savings could not be quantified in a useful way and will depend on the applicability of prior DOE/DOW reviews, applicants' ability to demonstrate that applicability, and differences in design or site-specific factors.[5] The proposed rule also substantially overlaps with coordination mechanisms between the NRC and DOE that are already in place.[6] And, although the Federal Register notice states that the proposal is "tentatively determined to be a deregulatory action as defined by E.O. 14192,"[7] the proposal's deregulatory benefit is not clearly demonstrated. The NRC has not shown that adding new regulatory text here will materially

[5] Reviews of Reactor Designs Previously Authorized by U.S. Department of Energy or Department of War, 91 Fed. Reg. 16,584, proposed April 2, 2026, Paragraph 48, https://www.federalregister.gov/d/2026-06414/p-48

[6] Specifically, Addendum No. 9 is already aimed at coordinating DOE and NRC technical expertise and enabling DOE-authorized safety analyses and related technical work to be leveraged in future NRC licensing activities. Nuclear Regulatory Commission & U.S. Department of Energy, Addendum No. 9 to the Memorandum of Understanding, "Coordinating DOE and NRC Technical Expertise and Knowledge on Advanced Nuclear Reactor and Advanced Reactor Fuel Technologies", ML25303A288.

[7] Executive Order 14192, Unleashing Prosperity Through Deregulation, February 6, 2025.

reduce burden, especially where the rule does not change application content requirements, safety review standards, or the agency's obligation to make independent licensing findings.

As such, it is not immediately clear why this pathway needs to be formalized as a rule. Instead, the staff could decide not to issue the final rule and instead publish a Regulatory Issue Summary (RIS) stating that test and operational data collected by DOE/DOD authorized reactors can be used in a license application. The notice, therefore, should more clearly explain why codification is needed to accomplish this clarification.

BTI does not recommend any changes to the proposed rule text in 10 CFR 50.43 and 10 CFR 53.440(a)(1), but recommends that the staff include appropriate justification if they choose to codify a final rule.

## Implementation Guidance Should Preserve the Limited Scope of the Proposed Rule

BTI is submitting a separate public comment on the draft Interim Staff Guidance "NRC Application Pathway for Reactor Designs Previously Authorized by U.S. Department of Energy or Department of War" (Docket ID NRC-2026-0760-XX).[8] This comment does not provide direct recommendations on the related Draft ISG, although some of this discussion may be relevant.

For purposes of this rulemaking, the central implementation issue is that any final guidance should remain aligned with the limited operative text of the proposed rule. The proposed amendments allow applicants to reference relevant DOE/DOW-derived information, but they do not alter NRC licensing standards, application-content requirements, or the NRC's obligation to make independent findings under the applicable regulatory framework.

[8] Draft Interim Staff Guidance: NRC Application Pathway for Reactor Designs Previously Authorized by U.S. Department of Energy or Department of War, 91 Fed. Reg. 20717, proposed April 17, 2026, https://www.federalregister.gov/documents/2026/04/17/2026-07566/draft-interim-staff-guidance-nrc-application-pathway-for-reactor-designs-previously-authorized-by-us

The proposed rule has generated significant discussion and confusion among stakeholders about its legal and practical effects. The unofficial redline shows limited changes to the regulatory text, yet those changes have generated a 53-page draft ISG.[9] That reaction suggests the proposed rule's main implementation risk is not the regulatory text itself, but the possibility that later guidance or stakeholder expectations will adopt an interpretation broader than the rule text supports. On one side, some supportive stakeholders appear to overread the proposal as creating something closer to an expedited pathway or a form of regulatory credit for prior federal approval.[10] On the other hand, the proposed amendments have also drawn concern that NRC is weakening or compromising its independent regulatory role.

Prior DOE/DOW testing, analyses, operating experience, and authorization materials may help the NRC focus its review where the submitted information is relevant, documented, traceable, and transferable to the NRC licensing issue. But review efficiency should arise from the quality and applicability of the information, not from the fact that the information originated in a DOE or DOW authorization process.

This implementation clarification will preserve the proposed rule's targeted benefit while avoiding the principal risk: that a narrow evidentiary clarification will be understood as creating a broader shortcut, preference, or presumption that the regulatory text does not support.

## EO 14300 and Cross-Rule Coordination

This proposed rule is one component of the NRC's broader implementation of EO 14300. BTI recognizes the value of sequencing related reforms quickly, but the NRC should ensure that this rule does not create avoidable inconsistency across licensing frameworks. Because the proposed amendments apply to Parts 50 and 53, and the Federal Register notice states that an analogous Part 57 provision will be addressed in a separate proposed rule, the NRC should ensure that

[9] U.S. Nuclear Regulatory Commission, NRC Application Pathway for Reactor Designs Previously Authorized by U.S. Department of Energy or Department of War, Draft Interim Staff Guidance, DANU-ISG-2026-XX, ML25363A192.

[10] Valar Atomics, Comment on NRC Reviews of Reactor Designs Previously Authorized by U.S. Department of Energy or Department of War, April 8, 2026.

applicants, staff, and stakeholders understand how DOE/DOW-derived information will be treated under each framework.

That coordination issue is especially important because the proposed rule uses related concepts across different regulatory structures. Proposed § 50.43(e)(3) would apply to designs previously authorized by DOE or DOW "as a utilization facility." Proposed § 53.440(a)(1) would similarly allow the demonstration basis to include information from a "utilization facility" previously authorized by DOE or DOW. The NRC should therefore clarify whether the proposed Part 53 pathway is intended to cover non-commercial DOE/DOW-authorized reactor designs where the underlying information is otherwise relevant to a commercial NRC application. If so, the final rule or statement of considerations should say so expressly. If not, the NRC should explain why the Part 53 pathway is intended to be narrower than the Part 50 pathway and how that narrower scope is consistent with the purpose of the rule.

The same issue should be addressed before the NRC proposes or finalizes an analogous Part 57 provision. Replicating similar language across Parts 50, 53, and 57 without harmonizing eligibility terms, transferability criteria, and implementation expectations could produce overlapping but non-identical pathways. That would reduce predictability rather than improve it.

BTI recommends that the NRC address these cross-framework issues in the final rule by identifying the intended scope of the Part 50 and 53 provisions, explaining how any future Part 57 analogue will be coordinated with Parts 50 and 53, and confirming that DOE/DOW-derived information will be evaluated under consistent principles across licensing frameworks.

## Conclusion

The proposed amendments to 10 CFR 50.43(e)(3) and 10 CFR 53.440(a)(1) clarify that applicants may rely on relevant information from prior DOE/DOW authorizations and testing to support an NRC licensing application. It does not change NRC licensing standards, make DOE/DOW authorization binding on the NRC, create a presumption that DOE/DOW-derived information is sufficient, or relieve applicants of the obligation to demonstrate compliance with NRC requirements.

Because the rule's function is primarily clarifying, the NRC should explain why codification is necessary rather than guidance. The NRC should also resolve cross-framework implementation issues, including how this pathway will operate under Part 53 and how any future Part 57 analogue will be coordinated with Parts 50, 52, and 53. We look forward to further engagement on the Draft ISG and welcome any questions or discussion on this comment.

Sincerely,

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