May 18, 2026

Subject: Comment on 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-2026-0760-0001]

The Breakthrough Institute (BTI) appreciates this opportunity to comment on the Draft Interim Staff Guidance (ISG), *NRC Application Pathway for 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.

BTI has submitted a separate comment to the proposed rule docket explaining that NRC should better justify why codification is necessary, given that existing processes already allow the agency to consider relevant DOE/DOW-derived information.[2] Consistent with that position, BTI's comment on the draft ISG focuses on specific areas where clearer definitions and implementation criteria would help support consistent, transparent application of risk-informed review.

BTI recognizes and supports the NRC's continued responsibility to conduct independent licensing reviews. The ISG should use more precise terminology to make clear that DOE/DOW authorization decisions do not, by themselves, carry regulatory weight in NRC safety licensing proceedings. Existing NRC review processes already allow applicants to submit data, operating experience, testing, analyses, and prior review generated through DOE/DOW-authorized activities, just as they allow applicants to submit technical information from other sources. The ISG should complement existing procedures by explaining how DOE/DOW-generated information can be used efficiently, consistently, and transparently within NRC licensing reviews.

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[1] U.S. Nuclear Regulatory Commission, *DANU-ISG-2026-XX, NRC Application Pathway for Reactor Designs Previously Authorized by U.S. Department of Energy or Department of War*, Draft Interim Staff Guidance, Apr. 2026, ADAMS Accession No. ML25363A192.

[2] The Breakthrough Institute, 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, Comment ID NRC-2025-1503-0126, May 4, 2026, https://www.regulations.gov/comment/NRC-202a -1503-0126.

This comment focuses on NRC safety licensing review, not the separate issue of environmental review coordination, where NRC may or may not adopt categorical exclusions from another agency when legally available, such as DOE's, under the amended National Environmental Policy Act. [3]

BTI submits these comments to support a clear, legally durable, and administrable implementation of the proposed rule. BTI recommends that the NRC:

1. Clarify that DOE/DOW authorization decisions have no direct regulatory effect in NRC licensing;
2. Define or remove ambiguous terms that may imply special treatment for DOE/DOW-generated information; and
3. Coordinate implementation across Parts 50, 52, 53, and any future Part 57 pathway.

DOE/DOW Authorization Should Be Treated as Evidence, Not Regulatory Validation

While DOE/DOW-authorized activities may generate valuable technical input for NRC review, the NRC's licensing determinations must be based on its own independent evaluation. This distinction is important because some stakeholders are interpreting the proposal as a mechanism to "acknowledge prior federal safety validations."[4] That framing is not the right basis for NRC safety licensing findings.

NRC staff emphasized in the public meeting on April 14, 2026, that applicants remain responsible for demonstrating compliance and that the NRC will continue to make independent safety findings using the same standards.[5] NRC slides also stated that the underlying concept is not new:

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[3] National Environmental Policy Act of 1969, as amended by the Fiscal Responsibility Act of 2023, Pub. L. No. 118-5, § 321, 42 U.S.C. § 4336c.

[4] Valar Atomics, Comment on *NRC Reviews of Reactor Designs Previously Authorized by U.S. Department of Energy or Department of War*, Apr. 8, 2026 ("regulatory frameworks that acknowledge prior federal safety validations").

[5] U.S. Nuclear Regulatory Commission, *Public Meeting Slides: Executive Order 14300: NRC Reviews of Reactor Designs Previously Authorized by U.S. Department of Energy or Department of War*, Apr. 14, 2026, at slide 20, ADAMS Accession No. ML26093A193.

applicants already routinely submit, and NRC evaluates DOE-generated technical information. The ISG should reflect the principle of independent safety reviews directly.

The draft ISG addresses a wide range of technical topics, but it largely functions as guidance for preparing and reviewing an NRC application. It does not clearly explain how an approved DOE/DOW authorization translates into an NRC licensing review differently from other data, information, testing, analyses, or operating experience already considered under existing § 50.43 and proposed § 53.440.

The ISG should clarify that its value lies in improving predictability, terminology, and documentation expectations, not in creating a new form of regulatory credit for DOE/DOW authorization. DOE/DOW-generated information should be assessed within existing NRC review procedures, under the same review standards and process that apply to other applicant-submitted technical information. Several terms in the ISG risk blur that distinction and should be clarified or removed.

Define "Leverage"

The draft ISG repeatedly uses "leverage" and related formulations to describe how NRC staff may use information from prior DOE/DOW-authorized activities. But the ISG does not define "leverage" or clearly explain using underlying technical information versus crediting the DOE/DOW authorization decision itself. Without that clarification, applicants and stakeholders may read "leveraging" either as special regulatory credit for DOE/DOW authorization decisions or as a discretionary case-by-case practice that provides no predictable implementation standard.

During the April 14th NRC public meeting, the NRC staff described leveraging as a "spectrum": from discrete technical data such as fuel or material qualification results to broader operating experience from a full-scale authorized reactor.[6] But in all cases, NRC staff emphasized that the NRC must determine independently what it needs to review and where remaining uncertainties require additional evaluation.

[6] Nuclear Regulatory Commission, Public Meeting Schedule: Meeting Details—Proposed Rule: NRC Reviews of Reactor Designs Previously Authorized by U.S. Department of Energy or Department of War (Meeting Code 20260296), Apr. 14, 2026, 3:00—4:30 p.m. ET, https://www.nrc.gov/public-involve/public-meetings/pmns/20260296.

The ISG should incorporate that principle of independence expressly. The ISG should define "leverage" as the use of applicant-submitted technical information, not deference to DOE/DOW authorization decisions. BTI recommends the following definition:

> *"Leverage" means the NRC's use and evaluation of applicant-submitted technical information generated through DOE- or DOW-authorized activities where that information is relevant, traceable, adequately documented, and sufficient to support NRC's independent findings under applicable NRC requirements. Leveraging does not mean adopting, or giving presumptive regulatory credit to DOE or DOW authorization decisions for NRC's safety licensing findings.*

Remove "To the Maximum Extent Practical"

The phrase "to the maximum extent practical" appears ten times in the draft ISG, across every topic-specific appendix addressing foundational safety and licensing areas, and as an instruction for how NRC staff should consider prior DOE/DOW authorization content in reviewing application material. But the ISG does not explain whether the phrase is intended to change how NRC staff evaluates DOE/DOW-generated information compared with other applicant-submitted technical information.

Applicants may read the phrase as suggesting that DOE/DOW-generated information will receive special evidentiary weight. Staff may read it as preserving broad case-by-case discretion without a clear documentation standard. External stakeholders may read it as suggesting that NRC will rely on DOE/DOW conclusions rather than independently reviewing the submitted record.

The ISG should remove each mention of "to the maximum extent practical" in the final guidance.

Explain "Adjust the Focus and Depth of Review"

The ISG states that, where an applicant references a previously authorized DOE or DOW design, the NRC may "adjust the focus and depth" of technical review for attributes reviewed in DOE or DOW authorizations. It further states that any adjustment should be "commensurate with the scope and depth" of the prior authorization and the applicant's demonstration of applicability to NRC

requirements, while still requiring a complete NRC application and an NRC determination that all applicable requirements are met.[7]

However, the ISG does not define what that adjustment means, nor how DOE/DOW-generated information justifies a more focused review with a different focus and depth. The ambiguity of whether DOE/DOW-generated information can reduce NRC review is concerning. The ISG should define what it means for NRC staff to "adjust the focus and depth" of review. The phrase should not imply a separate or lesser review standard for DOE/DOW-generated information. It should mean that NRC staff apply ordinary review procedures to determine whether the applicant-submitted record is relevant, complete, traceable, technically adequate, and sufficient to support the NRC finding at issue.

The ISG should also explain when additional review is required, including where there are material differences in site, configuration, operating envelope, safety function, analytical assumptions, documentation, traceability, or QA/data pedigree. This clarification would preserve NRC's independent judgment while using data and numbers from the DOE/DOW authorizations to reduce duplications and help applicants understand what information must be submitted for efficient NRC review.

The ISG Should Address the Part 50 / Part 52 / Part 53 / Part 57 Coordination Gap

The ISG also raises broader cross-framework implementation concerns because it is not aligned with the structure of the proposed rule and does not completely harmonize with all of the NRC's licensing pathways. Although the proposed rule is framed around Parts 50 and 53, the draft ISG is expressly framed around Parts 50 and 52 because Part 52 applicants rely on Part 50 standards, and the NRC presentation stated that similar guidance for applicants requesting approvals under

[7] U.S. Nuclear Regulatory Commission, *DANU-ISG-2026-XX, NRC Application Pathway for Reactor Designs Previously Authorized by U.S. Department of Energy or Department of War*, Draft Interim Staff Guidance, Apr. 2026, ADAMS Accession No. ML25363A192.

Part 53 remains under development.[8] The proposed rule also stated that "an analogous provision will be included in a separate proposed rule".[9]

That sequencing leaves uncertainty about how DOE/DOW-generated information will be evaluated under the proposed Part 53 pathway, with no timeline as to when it will be resolved. The draft ISG is intended to guide established Part 50 and Part 52 application types, including combined licenses, design certifications, standard design approvals, and manufacturing licenses. Even where the ISG discusses non-light-water reactors using a risk-informed and performance-based approach, it does so through existing Part 50/52 guidance architecture, including RG 1.233, RG 1.253, and associated LMP guidance, rather than through an express Part 53 implementation framework.

As a result, applicants and stakeholders cannot yet determine whether DOE/DOW-generated information will be evaluated under the same principles in Part 53 or whether different implementation expectations will apply. Until Part 53-specific guidance is developed, applicants and staff may be left to rely on existing Part 50/52-oriented roadmaps, which could reduce the practical value of the Part 53 pathway and create inconsistent expectations across licensing frameworks.

The same coordination concern applies to proposed Part 57. Proposed § 57.18(e) would allow Part 57 applicants to rely on relevant DOE/DOW authorizations for tested utilization facilities.[10] Those provisions are intended to minimize duplication in filing and reviewing applications under proposed Part 57. However, the draft ISG does not address Part 57 or explain how DOE/DOW-generated information would be evaluated for microreactors or low-consequence reactors. As the NRC develops future guidance, it should explain how DOE/DOW-derived information will be evaluated consistently, rather than allowing parallel pathways to develop with different implementation expectations.

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[8] U.S. Nuclear Regulatory Commission, *Public Meeting Slides: Executive Order 14300: NRC Reviews of Reactor Designs Previously Authorized by U.S. Department of Energy or Department of War*, Apr. 14, 2026, at slide 20, ADAMS Accession No. ML26093A193.

[9] 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/2026/04/02/202until6-06414/nrc-reviews-of-reactor-designs-previously-authorized-by-us-department-of-energy-or-department-of-war

[10] Nuclear Regulatory Commission, *Licensing Requirements for Microreactors and NRC-Defined Small Modular Reactors*, Docket ID NRC-2025-0379, RIN 3150-AL36.

The proposed rule, Federal Register notice, and NRC public meeting materials all recognize that relevant guidance remains under development. During the public meeting, NRC staff also indicated that significant updates may not occur until after related rulemakings are finalized, likely next year. BTI recognizes and understands that this guidance will evolve as related rulemakings and implementation experience develop. But that makes cross-rule coordination even more important.

As the NRC finalizes this guidance and develops related guidance for Parts 53 and 57, the NRC should acknowledge the current implementation gap between the proposed rule and the draft guidance. The ISG should state that the NRC intends to apply consistent principles for evaluating DOE/DOW-generated information across Parts 50, 52, 53, 57, or any other future licensing pathway.

Conclusion

BTI appreciates the NRC staff's effort to provide early implementation guidance, as well as the indication that the ISG may be revisited as related rulemakings are finalized.[11] That iterative approach is appropriate. In the interim, however, the ISG should provide clearer baseline expectations so that early implementation does not depend on open-ended terminology or case-by-case outcomes developed during pre-application engagement.

Before finalizing the rule or relying on the ISG for implementation, NRC should clarify that DOE/DOW authorization decisions have no direct regulatory effect in NRC licensing. The ISG should also define or remove ambiguous terminology, explain how DOE/DOW-generated information will be evaluated within NRC review procedures, and provide sufficient structure to improve consistency and predictability.

Sincerely,

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[11] Nuclear Regulatory Commission, Public Meeting Schedule: Meeting Details—Proposed Rule: NRC Reviews of Reactor Designs Previously Authorized by U.S. Department of Energy or Department of War, Apr. 14, 2026, 3:00—4:30 p.m. ET