U.S. Nuclear Regulatory Commission Report to Congress and the Office of Management and Budget on the Federal Permitting Improvement Steering Council Fiscal Year 2024 Recommended Best Practices for Environmental Reviews and Authorizations

Best Practice Categories and U.S. Nuclear Regulatory Commission Responses

This report assesses the performance of the U.S. Nuclear Regulatory Commission (NRC or Commission) in implementing the Federal Permitting Improvement Steering Council (Permitting Council) Fiscal Year (FY) 2024 recommended best practices. The Permitting Council is required to issue annual best practice recommendations for improving the Federal environmental review and authorization process for covered projects under Title 41 of the Fixing America's Surface Transportation Act (FAST-41). Each lead agency and participating agency for FAST-41 covered projects must submit to Congress and the Director of the Office of Management and Budget (OMB) an annual report assessing agency performance in implementing these best practice recommendations. For FY 2024, the Permitting Council issued best practice categories ii and x from the list below. The Permitting Council identified three key elements for agencies to implement as best practices: (1) tracking and reporting environmental and community outcomes; (2) tracking and reporting the status of reviews and permitting; and (3) establishing and implementing issue elevation procedures. All referenced documents are available through the NRC's Agencywide Documents Access and Management System (ADAMS) at https://www.nrc.gov/reading-rm/adams.html.

The Permitting Council's best practice recommendations include the following 10 categories:

i. enhancing early stakeholder engagement, including—
   a. engaging with Native American stakeholders to ensure that project sponsors and agencies identify potential natural, archeological, and cultural resources and locations of historic and religious significance in the area of the covered project;
   b. fully considering and, as appropriate, incorporating recommendations provided in public comments on any proposed covered project;
ii. ensuring timely decisions regarding environmental reviews and authorizations, including through the development of performance metrics;
iii. improving coordination between Federal and non-Federal governmental entities, including through the development of common data standards and terminology across agencies;
iv. increasing transparency;
v. reducing information collection requirements and other administrative burdens on agencies, project sponsors, and other interested parties;
vi. developing and making available to an applicant's appropriate geographic information systems and other tools;
vii. creating and distributing training materials useful to Federal, State, Tribal, and local permitting officials;
viii. in coordination with the Executive Director, improving preliminary engagement with project sponsors in developing coordinated project plans;
ix. using programmatic assessments, templates, and other tools based on the best available science and data;
x. addressing other aspects of infrastructure permitting, as determined by the Council.

FY 2024 Permitting Council Recommended Best Practices

Element 1: Tracking and Reporting Environmental and Community Outcomes.

The NRC's environmental review process includes evaluating, tracking, and reporting environmental and community outcomes. Two highlighted ways in this element that agencies can track, and report outcomes are community-based processes and mitigation measures. Community-based processes include public comment and community engagement. Mitigation measures focus on reducing or preventing potential risks and negative impacts, such as environmental or social harm.

Community-Based Processes

A key part of the environmental review process is public engagement. This is crucial for transparency and ensures the public's perspectives and concerns are considered in the decision-making process. The NRC has three formal ways that the public can engage in the environmental review process.

1. **Scoping:** Following the acceptance of an application, the scoping process is the first step of the environmental review process. The purpose is to define the scope of issues to be addressed in the staff's analyses in the National Environmental Policy Act (NEPA) document. The NRC will hold a scoping meeting early on to inform the public about the NRC review process, provide basic information on the project, and collect comments from the public.
2. **Draft NEPA Document:** In most cases, the NRC publish a draft of the NEPA document for public comment. These comments help staff determine whether additional analyses or clarifications to the document are warranted when preparing the final NEPA document. At the same time, the NRC hold a public meeting to discuss the preliminary findings.
3. **Hearings:** Members of the public whose interests are affected by an NRC licensing action have the opportunity to request a hearing by filing a petition to intervene. A notice is typically published in the *Federal Register* when an application is accepted for review.

Mitigation

The NRC does not have jurisdictional authority over mitigation measures related to non-radiological environmental impacts from nuclear power plants and facilities. Such enforcement and responsibilities are under the jurisdiction of other Federal and State agencies, as defined by the relevant Federal and State regulations. The NRC has a successful history of collaborating with relevant Federal, State, and local agencies, as well as applicants, to facilitate the development of appropriate mitigation procedures. The NRC plays a key role in coordinating efforts during environmental reviews to ensure mitigation measures align with regulatory requirements and meet the environmental goals of all involved parties.

The Accelerating Deployment of Versatile, Advanced Nuclear for Clean Energy Act of 2024 (ADVANCE Act), was signed into law by President Biden on July 9, 2024. Section 506(a) of the ADVANCE Act requires the NRC to "submit to the appropriate committees of Congress a report on the efforts of the Commission to facilitate efficient, timely, and predictable environmental reviews of nuclear reactor applications for a license under section 103 of the Atomic Energy Act of 1954." Section 506(b) directed specific content for this report, which the NRC delivered to Congress (ML24290A159) on January 6, 2025.

As part of that report, the NRC staff examined the agency's use of mitigated Findings of No Significant Impact (FONSIs) for environmental assessments (EAs). The NRC is required to prepare environmental impact statements (EISs) for reactor applications under Title 10 of the *Code of Federal Regulations* (10 CFR) 51.20(b). The staff recommended rulemaking to the Commission in SECY-24-0046 (ML24078A013), which if approved, would allow the staff to develop an EA for some applications to determine whether the proposed action has significant impacts. In making this determination, the agency would apply standard NEPA procedures, including consideration of any enforceable mitigation measures.

Element 2: Tracking and Reporting the Status of Reviews and Permitting.

Licensing Roadmap

The NRC staff has an internal program planning and resource management action plan ("Roadmap") to ensure environmental reviews and licensing actions are conducted in a timely and efficient manner. This licensing Roadmap, which also addresses the NRC's safety review, includes a description of the resources needed for the NRC's Environmental Center of Expertise (ECOE) to effectively plan and execute environmental review projects using commercially available software to prioritize, plan, manage, and execute projects, programs, and portfolios. This licensing Roadmap provides an integrated overview, as well as individual project estimates, for the tasks, scope, budget, resources, personnel, and timelines necessary for effective project management in preparation for potentially conducting multiple concurrent reviews. The licensing Roadmap is supported by an environmental review "Blueprint" that also assists ECOE project managers (PMs) in managing the complex risks of unplanned issues that can emerge during project execution. The Blueprint also enables tracking of environmental review progress to internal and external stakeholders updated across all environmental review projects.

NRC Public Dashboards

The NRC has implemented a public-facing dashboard system to provide detailed, up-to-date information for new reactor projects. This system is designed to improve transparency and keep the public informed of the status of these projects.

Key features of the project dashboard include:

1. **Project Information:** The dashboard provides a clear view of project timelines, application submittals, and the overall progress of the safety and environmental review.

2. **Real-Time Analysis:** The dashboard is updated as new milestones are completed, offering insights into the status of management and technical issues.

3. **Progress Monitoring:** Percent completion indicators for safety and environmental milestone phases allow for easy progress tracking. Gantt charts are used to illustrate the timelines for key milestone phases in both safety and environmental reviews.

4. **Audit and Interaction Tracking:** The results of NRC staff audits and their interactions with the applicant are tracked, helping to ensure compliance with NRC regulations and public transparency.

5. **Impact of Tasks:** The dashboard highlights tasks that could affect project schedules and budgets, providing details about overdue tasks and their expected resolution dates.

The NRC's commitment to using these dashboards for ongoing and future reviews aims to keep the public informed by providing real-time updates on the status of nuclear infrastructure projects. This initiative reflects the NRC's focus on maintaining transparency as it oversees the development of new nuclear facilities.

FY 2024 Project Dashboards

There are no FAST-41 covered projects subject to NRC review currently on the Federal Permitting Dashboard. The NRC uses previous and current projects as examples of best practices that could be used for a potential FAST-41 project.

- **Kairos Hermes 2:** On July 14, 2023, Kairos Power submitted the Hermes 2 construction permit application for a test reactor facility in Oak Ridge, Tennessee. On August 30, 2024, the NRC staff issued an EA and FONSI (ML24158A234).

- **TerraPower Kemmerer Power Station Unit 1:** On March 28, 2024, TerraPower submitted an application to the NRC for a construction permit for a power reactor facility in Kemmerer, Wyoming. The application was accepted and is currently under review.

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Element 3: Establishing and Implementing Issue Elevation Procedures.

Released on May 11, 2022, the previous Administration's Permitting Action Plan directs agencies to develop an elevation procedure (ML23243A977) detailing how to report on and resolve schedule challenges for infrastructure projects listed on the Federal Permitting Dashboard. The NRC's elevation procedure will be used when it is anticipated that one or more infrastructure project milestones may be missed or needs to be extended, creating a delay of more than 30 calendar days from the final target completion date of the relevant agency action.

The NRC used existing internal best practices and procedures in developing the elevation procedure to ensure consistency with established agency regulations, guidance, and protocols. The elevation procedure includes the timeframe after a missed deadline when senior officials, including the NRC's Federal Permitting Improvement Steering Council Member (Council Member), will be contacted and requested to act, as well as a description of planned next steps. The NRC has established these procedures, roles, and responsibilities to elevate the schedule challenges to the NRC's Chief Environmental Review and Permitting Officer (CERPO) as soon as possible when the PM, with assistance from the PM's management chain, cannot obtain agreement from all cooperating agencies and/or the project sponsor that the original permitting timetable dates will be met. If the PM identifies any issues or disputes that could delay milestones in the permitting timetable, the PM will work with the points of contact at the cooperating agencies and the project sponsor, if appropriate, to resolve the issue to reduce or eliminate the delay. The CERPO will then work with counterparts in the cooperating agencies to resolve any disputes regarding the permitting timetable and inform the Council Member.

The process is summarized in the following table.

Description of Elevation Process	Next Actions	Individual Responsible for Notifying Senior Official	Senior Official to be Notified
If the PM identifies a delay that will affect a milestone that is more than 60 calendar days away and is expected to delay the milestone by fewer than 30 calendar days, the PM will raise the issue to the cognizant Branch Chief (first level supervisor) and Division Management (second level supervisor).	PM, with Division Management assistance, coordinates with cooperating agencies, and the project sponsor if appropriate, to resolve the issue or reduce or eliminate the delay.	PM	Branch Chief and Division Management
If the PM identifies a delay that will affect a milestone that is less than 60 days away, and/or is expected to delay the milestone by 30 calendar days or more, the PM will raise the issue to the affected Branch Chief, Division Management and CERPO; and inform the Office Director (third level management) and Council Member of steps being taken.	Division Director and CERPO coordinate with CERPO(s) at the cooperating agency(ies), and the project sponsor if appropriate, to resolve the issue or reduce or eliminate the delay.	PM	Branch Chief, Division Management, CERPO, and Council Member
If an issue known to the Office Director and Council Member has been raised to the CERPO but has not been resolved by 30 calendar days after the milestone date or extension date, the CERPO will raise the issue to the Council Member for action.	The Council Member will work with counterparts at the cooperating agencies, and the project sponsor if appropriate, to resolve the issue or reduce or eliminate the delay.	CERPO	Office Director, CERPO, and Council Member
For any of the above items, if the CERPO determines that resolution with the other parties cannot be reached, the CERPO will request action by the Council Member.	The Council Member will work with counterparts in the cooperating agencies to resolve any disputes that could not be resolved at a lower level.	CERPO	Council Member

FY 2024 Agency-Selected Best Practices Implementation

For the FY 2023 report, the Permitting Council instructed agencies to select three best practice categories to focus on in FY 2024 for implementation. The NRC selected categories ii, iii, and ix. Below are the means by which the NRC has implemented or is currently implementing these categories.

Category ii: Ensuring timely decisions regarding environmental reviews and authorizations, including through the development of performance metrics.

Kairos Hermes 2 Construction Permit

The NRC establishes performance metrics to ensure that the review process is completed in a timely manner. The NRC posts dashboards for each application to promote transparency. Performance metrics typically include the status of key milestones in the safety and environmental review process, as well as an individualized breakdown of the milestones and a graph depicting when each milestone is completed in the review process.

On July 14, 2023, Kairos Power submitted the Hermes 2 construction permit application for construction of two additional molten salt test reactors using a similar design and on the same site as the initial Hermes 1 test reactor. The NRC accepted the application on September 11, 2023. In keeping with the Fiscal Responsibility Act of 2023 (FRA), for Hermes 2 the NRC staff pursued an exemption to current NRC regulations (i.e., 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions") which would have otherwise required preparation of an EIS for new test reactor construction. Under this approach the NRC staff prepared an EA for Hermes 2 because an EIS (ML23214A269) was completed the previous year for the Hermes 1 test reactor project on the same site. After publishing a draft of the Hermes 2 EA, the NRC staff offered an opportunity for public comment. The NRC received mostly favorable public comments supporting the Hermes 2 project. The NRC staff issued the Final EA and FONSI (ML24158A234) on August 30, 2024. With the use of incorporation by reference, the Hermes 2 EA was completed in less than one year, with 60 percent fewer pages and using 40 percent less resources than the Hermes 1 EIS.

Category iii: Improving coordination between Federal and non-Federal governmental entities, including through the development of common data standards and terminology across agencies.

Memoranda of Understanding

Over the last several decades, the NRC established and maintains Memoranda of Understanding (MOUs) with other Federal agencies, as appropriate, to provide a framework for early interagency coordination and participation with the goal of ensuring the timely review of applications for reactor and material projects. These MOUs streamline the respective regulatory processes associated with the development of environmental reviews required to construct and/or operate these facilities by reducing redundancy and facilitating information sharing, as appropriate. Cooperation among the MOU signatories ensures that each agency's statutory responsibilities, including NEPA review responsibilities, are met.

On August 20, 2024, the NRC entered into an addendum (ML24235A211) to the 2022 MOU with the U.S. Department of the Air Force (DAF) that establishes a cooperative agreement to support the Eielson Air Force Base Micro-Reactor Pilot Program. The MOU addendum is structured so that it honors the NRC's role as an independent safety and security regulator while allowing

cooperation between Federal agencies. The NRC will be the lead NEPA Federal agency for drafting the EIS and licensing the micro-reactor with DAF serving as a NEPA cooperating agency. DAF will lead and conduct all Section 106 and 107 activities under the National Historic Preservation Act and NRC will be a cooperating agency. Both agencies will issue separate Records of Decision.

Category ix: Using programmatic assessments, templates, and other tools based on the best available science and data.

New Reactor GEIS

The NRC staff issued a *Federal Register* notice (84 FR 62559; November 15, 2019) announcing an exploratory process and soliciting comments to determine the possible utility of developing a Generic Environmental Impact Statement (GEIS) for licensing advanced nuclear reactors (ANRs). The exploratory process concluded with a paper to the Commission noting that the staff decided to pursue a GEIS using a technology-neutral approach, and that a GEIS would generically resolve many environmental issues, saving resources and providing predictability for potential future applicants. On September 21, 2020, in Staff Requirements Memorandum (SRM) SECY-20-0020 (ML20052D175), the Commission approved the development of a GEIS for the construction and operation of ANRs using a technology-neutral, performance-based approach, and directed staff to codify results in the CFR. In 2021, the NRC staff submitted to the Commission the proposed rule, Advanced Nuclear Reactor Generic Environmental Impact Statement.

On April 17, 2024, in SRM SECY-21-0098 (ML21222A044), the Commission directed the NRC staff to change the limited applicability of the GEIS from "ANRs" to any new nuclear reactor licensing application, provided the application meets the values and the assumptions of the plant parameter envelopes and the site parameter envelopes used to develop the GEIS.

The NRC staff issued a Notice of Availability in the *Federal Register* (89 FR 80797; October 4, 2024) for the Draft GEIS for licensing of New Nuclear Reactors GEIS (NR GEIS) and proposed rulemaking package, with a 75-day comment period. In November 2024, the NRC staff held three public meetings to discuss changes to the rule and facilitate comments. The NRC staff expects to deliver the final NR GEIS and rule to the Commission by December 1, 2025, and anticipates the final NR GEIS and rule, if approved, will be published by June 1, 2026.

License Renewal GEIS

On February 24, 2022, the NRC staff received Commission direction (SRM-SECY-21-0066, ML22053A308) to review and ensure the subsequent license renewal (SLR) of nuclear power plant operating licenses are fully supported by NRC regulations, guidance, and analyses. The Subsequent License Environmental Directorate was created to oversee the following activities:

1. A rulemaking to amend Table B–1, "Summary of Findings on NEPA Issues for License Renewal of Nuclear Power Plants," in Appendix B, "Environmental Effect of Renewing the Operating License of a Nuclear Power Plant," to Subpart A, "National Environmental Policy Act—Regulations Implementing Section 102(2)," of 10 CFR Part 51;

2. An update of NUREG-1437, Revision 1, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants".

On March 25, 2022, the staff prepared SECY-22-0024 (ML22062B592) to request initiation of a rulemaking that aligned with Commission direction regarding the NEPA analysis of SLR applications. In April 2022, the Commission approved the staff's rulemaking request and required a 24-month completion deadline. On December 6, 2022, the staff submitted to the Commission the proposed rule (SECY-22-0109, ML22165A003) that would amend 10 CFR 51 by removing the word "initial" in 10 CFR 51.53(c)(3) and revising 10 CFR 51, Table B-1. The proposed rule package was supported by an updated draft license renewal GEIS (LR GEIS).

On January 23, 2023, the Commission directed (SRM-SECY-22-0109, ML23023A200) the NRC staff to publish the proposed rule for a 60-day comment period. Additionally, the Commission directed the staff to update the proposed rule package to clarify that the scope of the LR GEIS includes an initial license renewal and one term of SLR. During the 60-day comment period, the NRC staff held six public meetings to discuss the proposed rule package and collect comments. On February 21, 2024, the staff submitted the final rule (SECY-24-0017, ML23202A179) to the Commission. The Commission approved the final rule and guidance on May 16, 2024 (ML24137A164). The rulemaking was completed in accordance with the approved schedule of approximately 24 months when the final rule was published in the *Federal Register* on August 6, 2024 (89 FR 64166).

FY 2025 Agency-Selected Best Practices

Identifying the highest value best practices within the agency is crucial for achieving and increasing success and transparency. Each agency has been instructed to select at least three best practice categories on which to focus, in addition to the recommended best practices released by the Permitting Council. The selected categories are consistent with the NRC's overarching mission, implementation of the ADVANCE Act and the FRA NEPA amendments, and support of the NRC's 2022-2026 Strategic Plan, notably Strategic Plan Goal 3: "Inspire stakeholder confidence in the NRC." For FY 2025, and consistent with the NRC's implementation of the ADVANCE Act in the environmental review program, the NRC is focusing on the following three best practice categories:

1. Category ii: Ensuring timely decisions regarding environmental reviews and authorizations, including through the development of performance metrics.

Timely decisions and developing performance metrics are critical aspects of effective management within an agency. Timely decisions ensure future challenges are addressed effectively and efficiently, while environmental reviews continue to meet their schedules and key milestones. Additionally, establishing key performance indicators within the agency will ensure that all reviews are meeting expectations and highlight where improvements can be made.

2. Category iv: Increase transparency.

Increasing transparency in environmental reviews is key to building trust and accountability. By making information, scientific findings, and decisions accessible to the public, agencies invite meaningful input in the review process. The openness of information and resources helps identify potential issues early on and leads to better-informed decisions that reflect the concerns of affected communities and stakeholders.

3. Category ix: Using programmatic assessments, templates, and other tools based on the best available science and data.

Utilizing programmatic assessments and templates can significantly enhance consistency within an agency's organizational processes. Creating and/or updating templates to minimize discrepancies in reviews can ensure that work is consistent, maintain the same standards, and provide a framework for completing environmental reviews. By implementing these tools, an agency can streamline review processes, identify strengths and weaknesses in the environmental review process, and make informed decisions.