U.S. Nuclear Regulatory Commission Report to Congress and the Office of Management and Budget on the Federal Permitting Improvement Steering Council Fiscal Year 2023 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) 2023 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 2023, the Permitting Council reissued all best practices issued from FY 2018 to FY 2022 from the list below. The Permitting Council requested that agencies identify two response areas which include: (1) highlighting at least three best practices across the ten categories from FY 2018 to FY 2023 that have been shown to be successful in improving the Federal environmental review and permitting process for covered projects and (2) three best practice categories that the agency plans to prioritize in the upcoming fiscal year for implementation. All 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 ten 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; and
x. addressing other aspects of infrastructure permitting, as determined by the Council.

Response one: highlighting at least three best practices across the ten categories from FY 2018 to FY 2023 that have been shown to be successful in improving the Federal environmental review and permitting process for covered projects.

Currently, the NRC has no covered projects under FAST-41; however, as a means of demonstrating good faith, the NRC has implemented the best practices for these agency projects/actions.

Category 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.

Eielson Air Force Base Micro Reactor Project Preapplication

As part of the Department of the Air Force (DAF) Council for Alaska Microreactor Program (CAMP), the NRC has built a robust relationship with Tribes, state agencies, and localities for the Eielson Air Force Base (AFB) micro-reactor project. In March 2023, the NRC participated in the Tanana Chiefs Conference (TCC) Annual Meeting in Fairbanks, Alaska. The TCC is an Alaska Native non-profit corporation that focuses on meeting the health and social service needs of Tribal members and beneficiaries throughout their region. The TCC represents 37 Federally-recognized Tribes in Alaska. The agency returned in June 2023 for an in-person CAMP meeting and subsequent meetings with the TCC, state agencies, local officials, and other stakeholders. In August 2023, the agency returned for a CAMP meeting which also included a public meeting held at the University of Alaska Fairbanks campus. At the public meeting were representatives from the DAF, the Department of Energy (DOE), the Commanding Officer at Eielson AFB, and Agency representatives from safety and environmental program offices. Brief presentations were provided by each Agency, and a question-and-answer session was held with approximately 130 audience members regarding the microreactor project. At this meeting, the DAF announced the selection of their vendor for the construction and operation of the microreactor at Eielson AFB and representatives of the company were on hand to meet the participants of the meeting.

During these CAMP meetings, the NRC discussed its licensing process and detailed safety and environmental reviews. Tribal leadership asked questions regarding the impact of the project on the community and wildlife, size of the facility, and transportation impacts on local roads and highways. The TCC communicated that Tribal Nations are interested in the future use of micro-reactor technology in remote villages which would replace legacy diesel generators that currently power the village communities.

The NRC also met with the Fairbanks Chamber of Commerce, the mayor of the North Star Borough, the Commanding Officer, and staff of the 354th Fighter Wing at Eielson AFB, and held a Townhall meeting with local public stakeholders. Engaging in early and frequent pre-application interactions with the TCC, state officials, local governments, and others enabled the NRC to develop a robust rapport with stakeholders, setting a strong foundation of trust and bilateral communication which will enhance the effectiveness and timeliness of the agency's licensing process.

TerraPower Preapplication

The NRC staff participated in government-to-government meetings with state legislators and other state officials in July 2023 in Cheyenne, WY. The NRC and DOE provided an overview of each agency's activities related to TerraPower's proposed Natrium demonstration reactor in Kemmerer, WY. The NRC staff addressed several questions regarding the difference between preconstruction and construction activities, the timing and location of various external stakeholder interactions involved in the licensing process, and the relationship between NRC and DOE National Environmental Policy Act (NEPA) responsibilities that need to be satisfied for the Natrium project. The NRC staff used this opportunity to begin building a strong relationship with Wyoming government officials and instill confidence in the NRC's review process, thereby avoiding misconceptions about the agency's licensing role, procedures, and timelines for completion.

Carbon Free Power Project Preapplication

In July 2023, Utah Associated Municipal Power Systems Carbon Free Power Project (UAMPS) submitted an application as part of a phased approach for licensing a new advanced reactor design at the Department of Energy – Idaho National Laboratory (DOE-ID INL) site. In November 2023, NuScale and UAMPS withdrew the application and as a result, the NRC suspended its review of the project.

The DOE and NRC both have responsibilities under NEPA and National Historic Preservation Act Section 106. To reduce the overlapping scope of responsibilities between DOE and NRC, DOE developed a Memorandum of Understanding (MOU) to ensure efficient and meaningful coordination of these responsibilities. The NRC staff began holding a series of meetings with the Shoshone-Bannock Tribes, who reside on the Fort Hall Reservation located adjacent to the INL site, approximately 18 months before the application was submitted in order to share information regarding the proposed project, the selected licensing approach, the NRC review process and the opportunities for Tribal engagement. Staff also reached out early to exchange information about the review approach with the Idaho State Historic Preservation Office and Advisory Council on Historic Preservation (ACHP). Through these proactive meetings the staff gained information on the Tribal Nation's perspectives and concerns, areas of expertise and the desired level of involvement in the NEPA and consultation process. Meetings were held almost entirely in-person with Tribal department management and staff and elected Tribal leadership. Staff coordinated these engagements in part with relevant staff from DOE-ID. These proactive actions were taken to ensure that a trust relationship existed with the Tribes, points of contact were identified, and consultation protocol developed and understood before the review was to begin.

TRI-structural ISOtropic (TRISO) Particle Fuel Manufacturing

The NRC staff participated in scoping meetings with local officials, county leaders, and local first responders regarding development of an Environmental Impact Statement (EIS) for the TRISO-X Fuel Fabrication Facility in Oak Ridge, TN. The proposed fuel fabrication facility would be the nation's first High-Assay Low-Enriched Uranium (HALEU)-based fuel fabrication facility. This HALEU fuel is needed for the operation of advanced nuclear reactors, including those currently in the NRC preapplication phase. The NRC staff exchanged information regarding regulatory authority, environmental protection activities, and permitting and regulatory requirements. The NRC staff used this opportunity to continue engaging with Tennessee government officials and continue to instill confidence in the NRC's review process.

Uranium Mining Projects and Cleanup

On August 22, 2023, NRC senior management and staff conducted a proactive outreach meeting with the newly elected President of the Navajo Nation, Dr. Buu Nygren, in Window Rock, AZ. Topics discussed at the meeting included uranium cleanup, uranium mining exploratory activities, and long-term waste disposal siting. On August 24, 2023, NRC senior management and staff, in collaboration with the DOE, Environmental Protection Agency (EPA), and the Department of the Interior, formally consulted the Ute Mountain Ute Tribe on the development of a DOE uranium reserve near the White Mesa Mill in White Mesa, UT. The NRC staff attended the Nuclear Energy Tribal Working Group and Tribal Radioactive Materials Transportation Committee meetings to discuss ongoing NRC activities and efforts to enhance Tribal outreach and consultation. The NRC staff used this opportunity to enhance its trust relationship with Tribal officials through formal consultation and instill confidence in the NRC's review process.

In January 2023, the NRC published the final EIS (ML22356A145) for the proposed disposal of mine waste at the United Nuclear Corporation mill site in McKinley County, NM. The NRC's safety and environmental reviews for this project involved extensive coordination with EPA Regions 6 and 9 and with the Navajo Nation, in addition to consultations with several New Mexico agencies. The Record of Decision (ML23040A439) was published in February 2023 and provides a summary of the NRC's process and review outcomes.

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

Kairos Hermes 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, including the following projects, 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 it was completed in the review process.

The NRC staff prepared an EIS for the issuance of a construction permit to Kairos Power to build a test reactor in Oak Ridge, TN. If constructed, the Kairos Hermes test reactor will be the first molten salt-cooled reactor to be approved in the United States in over 50 years. The agency issued the final EIS in August 2023, within 18 months of the notice of intent (which is 50 percent faster than the generic 36-month licensing schedule) and consisted of only 116 pages. Even though the Kairos Hermes project started more than a year before the 2023 Fiscal Responsibility Act (FRA), the EIS is well under the time and page length targets established by the FRA. Some specific tools used by the NRC to meet the schedule and page length targets included more agile project management, increased use of “incorporation by reference”, use of an annotated outline with page targets for each section, use of a core team of environmental generalists and specialists targeting key issues, and elimination of redundant summarization. Key sources for incorporation by reference included technical information submitted by the applicant which was independently evaluated by staff as part of the application and other recently completed NEPA documentation for projects in the Oak Ridge area. The agency hopes to use the success of the Kairos Hermes Construction Permit EIS (ML23214A269) as a model for more concise and more effective NEPA documentation for future advanced reactor licensing.

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 on the same site as the initial Hermes test reactor described above. The NRC accepted the application in September 2023 and expects to complete the environmental review by September 2024. In keeping with the FRA's encouragement of agencies to prepare environmental assessments (EAs) for actions for which a Finding of No Significant Impacts (FONSI) may be possible, for Hermes 2 the NRC staff is pursuing an exemption to current NRC regulations (Title 10 of the *Code of Federal Regulations* Part 51) which would otherwise require preparation of an EIS for new test reactor construction. The NRC is preparing an EA of Hermes 2 because the EIS completed last year for the Hermes 1 test reactor project on the same site (see above paragraph) determined that any environmental impacts would be Small, defined as environmental effects that are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource. After publishing a draft of the Hermes 1 EIS, the staff received mostly favorable public comments supporting the Hermes project. If the staff’s Hermes 2 EA does result in a FONSI, the staff plans to publish a draft of the EA and FONSI for a 30-day public comment period. The staff is acting in the public interest and in the spirit of NEPA by offering a substantial opportunity for public involvement. The NRC staff estimate that preparing an EA and FONSI for Hermes 2 would take 12 months rather than 24 months for preparation of an EIS and may reduce environmental review costs by more than 50 percent.

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

Interagency Liaison Group

Under the NRC's Office of Nuclear Materials Safety and Safeguards (NMSS), Division of Materials Safety, Security, State, and Tribal Programs, the Tribal Relations Team leads the Tribal liaison function under the Commission's Tribal Policy Statement (TPS) (ML17011A243) and Management Directive 5.1 (ML112351312), "Consultation and Coordination with Governments and Indian Tribes".

The main objectives of the Tribal Relations Team include:

- Leading the implementation of the NRC's Tribal Liaison Program, in coordination with the Regional State Liaison Officer.
- Serving as the primary contact for policy matters between the NRC and State and Federally-recognized Tribal Nations.
- Developing and coordinating policy and procedures for intergovernmental consultations.
- Facilitating government-to-government consultation with Tribal Nations for programmatic issues and performing general outreach to Tribal Nations.
- Providing appropriate training of the NRC staff prior to their interactions with Tribal Nations.
- Facilitating communications with Tribal contacts by maintaining a database of Tribal contacts and their contact information (e.g., Tribal officials), list servers, and a public website.

Under the Tribal Liaison Program, the NRC has Tribal liaison staff and Regional State Liaison Officers (RSLOs). Tribal liaisons at headquarters and the RSLOs share the responsibilities for the Tribal liaison functions. The NMSS Tribal liaisons serve as the primary points-of-contacts for Federally and State-recognized Indian Tribes, intertribal agencies, and Indian Tribal organizations. The RSLOs serve as the primary points of contact for Tribal Nations interested in NRC regulated activities within the NRC regions. The RSLOs may work independently with Tribal Nations within their region or work collaboratively with the Tribal liaison at NRC headquarters. Like Tribal liaisons, the RSLOs work with their counterparts in the regional offices of other Federal agencies to ensure effective Tribal interactions and to further support strong Federal-Tribal relations.

Tribal Protocol Manual

The Federal government and the NRC have a trust responsibility that involves meaningful and timely engagement with Federally-recognized Tribal Nations. On January 9, 2017, the NRC published its TPS (ML17011A243) of principles to guide the agency's government-to-government interactions with American Indian and Alaska Native Tribes (82 FR 2402). In an effort to meet the intent of Executive Order 13175, “Consultation and Coordination with Indian Tribal Governments”, the agency developed this document in response to direction from the Commission following an increase in the number of consultations between the NRC and Federally-recognized Tribes. The NRC staff implements the principles of the TPS to advance communication and understanding with Tribal Nations to ensure that the Tribes have opportunities to meaningfully participate in NRC’s regulatory processes and inform NRC decision-making activities.

The six principles of the TPS are as follows:

1. The NRC recognizes the Federal Trust Relationship with and will uphold its Trust Responsibility to Indian Tribes.
2. The NRC recognizes and is committed to a government-to-government relationship with Indian Tribes.
3. The NRC will conduct outreach to Indian Tribes.
4. The NRC will engage in timely consultation.
5. The NRC will coordinate with other Federal agencies.
6. The NRC will encourage participation by State-recognized Tribes.

The NRC’s Tribal Protocol Manual (TPM) (ML18214A663) provides implementing guidance for the TPS and serves primarily as a reference tool to guide effective consultations and outreach between the NRC and Tribal Nations related to activities within the scope of the NRC’s jurisdiction.

The NRC Tribal Relations Team is in the process of updating the TPM and developing agencywide consultation guidance to establish procedures for conducting effective government-to-government consultations between the NRC and Federally-recognized Indian Tribes. The goal is to ensure that Tribal Nations are provided timely and meaningful opportunities to provide input on NRC regulatory actions that have substantial direct effects on one or more Tribes, as well as those regulatory actions for which Tribal consultation is required under Federal law. The consultation guidance document and updated TPM will include comments from Tribal Nations and integration of other stakeholders (e.g., ACHP and Federal directives for Tribal consultations) to improve the agency’s overall process for Tribal consultation consistent with the NRC’s TPS. These procedures are not a substitute for the routine communications, collaboration, coordination, and agency meetings that support, strengthen, and enhance NRC’s relationships with Federally-recognized Indian Tribes and Alaska Natives.

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

Memoranda of Understanding

Over the last several decades, the NRC established and continues to establish 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 NEPA review responsibilities, and responsibilities related to other statutes, are met. Recently, the NRC entered into an MOU (ML23213A147) with DOE for various reactor projects and is in the process of developing additional MOUs to enhance coordination among Federal partners in anticipation of NRC receiving advanced reactor applications in the near future. In addition, the NRC entered into a project-specific MOU with DOE Office of Clean Energy Demonstrations to cooperate on an EIS for a HALEU fuel fabrication facility EIS. An MOU has many benefits including the reduction in the number of projects EISs, reduction in cost for participating agencies, streamlining of public participation and consultation, and sharing of agency information and expertise.

Response Two: three best practice categories that the agency plans to prioritize in the upcoming FY for implementation.

Prioritizing best practices within the agency is crucial for achieving and increasing success and transparency. In the next year, it is essential to focus on three key areas to increase and highlight areas of implementation and improvement. The selected categories are consistent with the NRC's overarching mission, implementation of 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 2024, NRC is prioritizing the following best practices categories:

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

Prioritizing 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 their expected performance and highlight where improvements can be made.

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

Improving interagency coordination is essential to ensure robust collaboration across the Federal government and non-Federal entities. By enhancing coordination, information sharing and reviews can become more seamless and allow for better resource use and reporting. Developing common data standards and terminology will better enhance communication and understanding in interagency discussions and reviews, including coordination between lead and cooperating agencies.

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

A programmatic assessment was performed in support of the implementation of the NEPA FRA amendments. Creating and/or updating templates to minimize discrepancies in reviews can ensure that future work is consistent, maintain the same standards, and provide a framework for completing environmental reviews. By implementing these tools, an agency can its streamline review processes, identify strengths and weaknesses in the environmental review process, and make better informed decisions.