



NRIC **TECH**
TALKS

NRIC Tech Talk: Pre-application Process with the NRC

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Panelists



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**Draft White Paper -
Preapplication
Engagement to Optimize
Advanced Reactors
Application Reviews
(ADAMS Accession No.
ML21014A267)**

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Purpose

- Provides information to advanced reactor developers on the benefits of robust preapplication engagement in order to optimize application reviews.
- Encourages pre-application interactions with advanced reactor developers to provide stability and predictability in the licensing process through early identification and resolution of technical and policy issues that would affect licensing.
- Proposes a set of pre-application activities that, if fully executed, will enable staff to offer more predictable and shorter schedules and other benefits during the review of an advanced reactor license application.

Benefits of Pre-Application Engagement

- Enhanced regulatory predictability
- Greater review efficiency
- More visibility for public on key topics
- Early engagement and interactions with ACRS and other agencies

Benefits of Full Execution of White Paper Pre-Application Engagement

- Review schedule at least 6 months shorter than the generic schedules
- Acceptance review completed in two weeks, only addressing administrative aspects (e.g., proprietary review, making the application publicly available, and issuing notice of availability)
- Key Assumptions for shortened schedule
 - Timely Responses to Requests for Additional Information (RAIs)
 - No Substantive Changes to Application
 - No Significant Design Changes (Pre-application vs Application)

Pre-Application Engagement

- NRC staff applied a graded approach to identify key safety and environmental licensing areas for pre-application engagement with advanced reactor developers
 - Topical Reports - definitive findings
 - White Papers, Audits and Meetings – feedback and staff awareness

Topical Reports

- Principal Design Criteria for non-light water reactors
- Process for selection of licensing basis events and classification and treatment of structures, systems, and components
- Fuel qualification plan and associated methodologies
- Source term methodology
- Quality Assurance Program description
- Plan for protection of safeguards information
- Safety and accident analysis methodologies

Meetings, Audits and White Papers

- Probabilistic risk assessment
- Regulatory Gap Analysis
- Policy Issues
- Consensus codes and standards and code cases
- Environmental Activities
 - Unique or Novel Methodologies and Issues
 - Alternatives to the Proposed Project
 - Cooling Water Availability
 - Status of Permits and Authorizations
 - Meetings on critical components of environmental reviews identified in the white paper

Pre-Application Readiness Assessment

- Applicant should allow staff to conduct a pre-application readiness assessment
 - See Office Instruction LIC-116, “Pre-Application Readiness Assessment,” ADAMS Accession No. ML20104B698)
- Six months prior to submittal date
- Applicant should provide most current draft of safety analysis report and environmental report, referenced documentation, and applicant staff and contractors
- Right-sized scope based on type of application and extent of pre-application activities leading up to this point



Questions?



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Thank you!

All proceedings from this webinar will be posted under Resources on the NRIC website.

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