THE REGULATORY ROUTE TO COMMERCIAL NUCLEAR DEPLOYMENT

A webinar series to understand the road that was taken to arrive at the current regulatory framework to navigate future paths to successful deployment.

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Webinar #2 – Understanding and Navigating Within the Existing Regulatory Framework

Wednesday, February 24, 2021, Noon-3 pm MST **Questions and Answers**

Question: Will you please comment on the agency budget? Do they all get paid? How is the budget established?

Response: Congress establishes the NRC budget each fiscal year.

The NRC is required by law to recover most of its annual budget through user fees (e.g., fees charged to NRC applicants and licensees).

- These fees are codified in 10 C.F.R. Parts 170 and 171.
- On Feb. 22, 2021, the NRC published in the Federal Register (86 FR 10459) the proposed rule to update these fees for FY 2021.
- The NRC proposed fee rule reflects a total budget authority of \$844.4 million for FY 2021, a decrease of \$11.2 million from FY 2020.
- The Nuclear Energy Innovation and Modernization Act (NEIMA) specified certain changes to the framework the NRC uses to set the fees.

Question: Is there a guidance which defines when ACRS is required? What are the criteria to invoke an ACRS review?

Response: The NRC's regulations specify when ACRS review is required. A few examples:

- 10 C.F.R. § 50.58(a) (construction permit / operating license for commercial production/utilization facility)
- 10 C.F.R. § 52.23 (combined operating license)
- 10 C.F.R. § 54.25 (license renewal)
- 10 C.F.R. § 2.809 (rulemaking)

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Questions and Answers

Question: Is there any other agency in the government that function like the NRC?

Response: There are several other federal agencies that have similar functional features. For example:

- Independent federal agency (rather than executive branch): Consumer Product Safety Commission
- Budget recovery through user fees: Food and Drug Administration (e.g., application fees for new drugs)
- Separation of regulatory and promotional functions: Former Minerals Management Service was split into the Bureau of Ocean Energy Management, Bureau of Safety and Environmental Enforcement, and the Office of Natural Resources Revenue.

Question: Licensing is a long strenuous process, are there any formal approaches to aid in this process, like argumentation approach to represent safety case?

Response:

Each application is unique, so the proper approach is not one-size-fits-all.

 Early engagement of specialized consultants and nuclear legal counsel to help develop a tailored licensing strategy is vital to streamlining the process.

In general terms, there are various tools that may be helpful depending on the application. A few examples include:

- Pre-application interaction (as discussed by Ray Schiele)
- Regulatory engagement plan (as discussed by Jim Kinsey)
- Use of Topical Reports (may allow for stepwise approach)
- Early analysis of potential exemptions and regulatory applicability determinations.

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Questions and Answers

Additional references not directly covered in this webinar, but that are helpful in these areas include:

- NRC's "A Regulatory Review Roadmap for Non-Light Water Reactors" (ML17312B567), December 2017
- NRC's "Non-Light Water Review Strategy Staff White Paper", draft, (ML19275F299) September 2019

Question: What is the difference between an Audit and RAI?

Response: A regulatory audit is an effort by the NRC staff to examine and evaluate information with the intent to gain understanding, verify information, and/or identify information that will require docketing to support the basis of a licensing or regulatory decision.

Requests for additional information (RAIs) serve the purpose of enabling the NRC staff to obtain all relevant information needed to make a regulatory decision on a license amendment request or application for license, certificate or permit that is fully informed, technically correct, and legally defensible. RAIs are necessary when the information is not included in the initial submittal, is not contained in any other docketed correspondence, or cannot reasonably be inferred from the information available to the staff. RAIs should be directly related to the applicable regulatory requirements associated with the regulatory action.

Question: How much information from CRBR era was used?

Response: The Clinch River Breeder Reactor (CRBR) Project construction project was discontinued in the early 1970s. However, a significant amount of subsurface investigation was performed to support the project (e.g., Core bores and wells). CRBR legacy information was used to inform the CRN project strategy for subsurface characterization supporting the Early Site Permit Application.



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Questions and Answers

Question: How much was the audit cost?

Response: There is no fixed cost for an Audit. Audit costs will vary with the length of an Audit and number of NRC Staff that support the Audit.

Question: How long is the permit good for?

Response: The CRN ESP-006 is valid for 20 years

Question: If the focus is on LWRs, how does that effect the review plan for Liquid Metal

reactors?

Response: The objective of this webinar was to provide an overview of the NRC's organizational structure and the hierarchy of its documents, which are largely LWR-based and directly associated with the existing operating fleet. However, both the NRC and industry stakeholders have been working in a coordinated effort to change and adapt this LWR-focused regulatory framework to be able to better accommodate various advanced non-LWR technologies, including Liquid Metal reactors. There has been considerable progress in this area over the last 3-5 years, with additional efforts underway. NRC has recently issued an updated summary of its efforts in this area – see SECY-21-0010, "Advanced Reactor Program Status". Additional detail, reference material, and summaries of ongoing industry interactions with NRC can be found within the "Advanced Reactors" portion of NRC's website.