



NRC Licensing Process Overview

October 25, 2022



Protecting People and the Environment

Mission

The NRC licenses and regulates the Nation's civilian use of radioactive materials to provide reasonable assurance of adequate protection of public health and safety and to promote the common defense and security and to protect the environment.



Principle Legislation, Regulations, and Outcome

Environmental Review

- National Environmental Policy Act - NEPA (1969)
- 10 CFR Part 51
- Impacts **ON** the environment **FROM** licensed activities
- Impact-focused
- Disclosure document (CatEx, EA/FONSI, EIS/ROD)

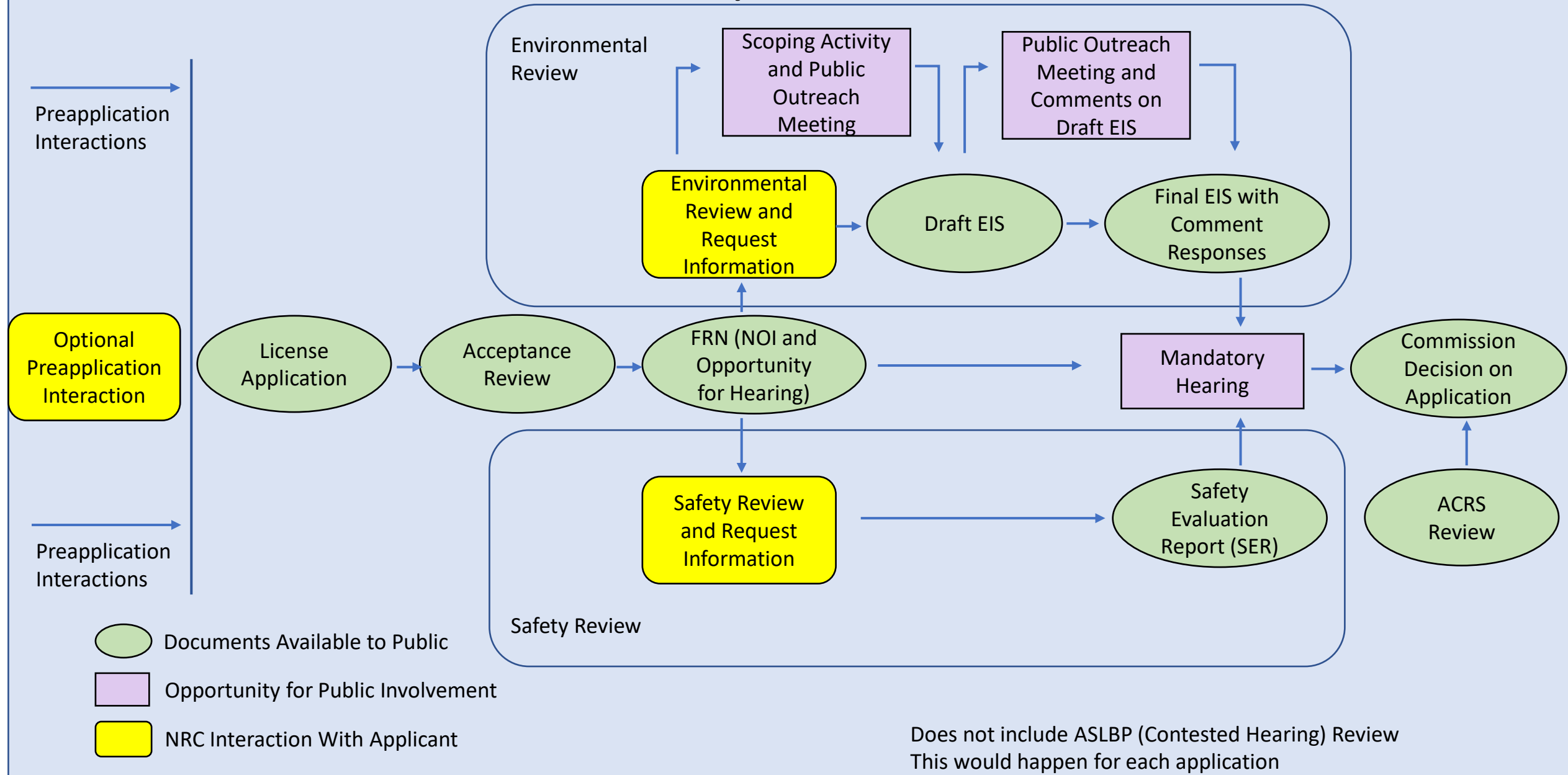
Safety Review

- Atomic Energy Act - AEA (1954)
- Energy Reorganization Act (1974)
- 10 CFR Parts 2, 20, 40, 50, 52, 70
- Impacts **ON** the facility **FROM** the environment
- Risk Informed
- Reasonable assurance of adequate protection (SER)

Other Important Statutes

- National Waste Policy Act of 1982
- Energy Policy Act of 2005
- Nuclear Energy Innovation and Modernization Act (2019)
- Title 41 of Fixing America's Surface Transportation Act (FAST-41)

Two Parallel Reviews – Safety & Environmental



Historic Times for NEPA Process

Acceptance Review

- 30 – 60 calendar days, depending on quality of the application

Scoping Comment Period

- 60 calendar days, with advertised meetings held near plant

Draft EIS Preparation

- Approximately one year (based on complexity of application)

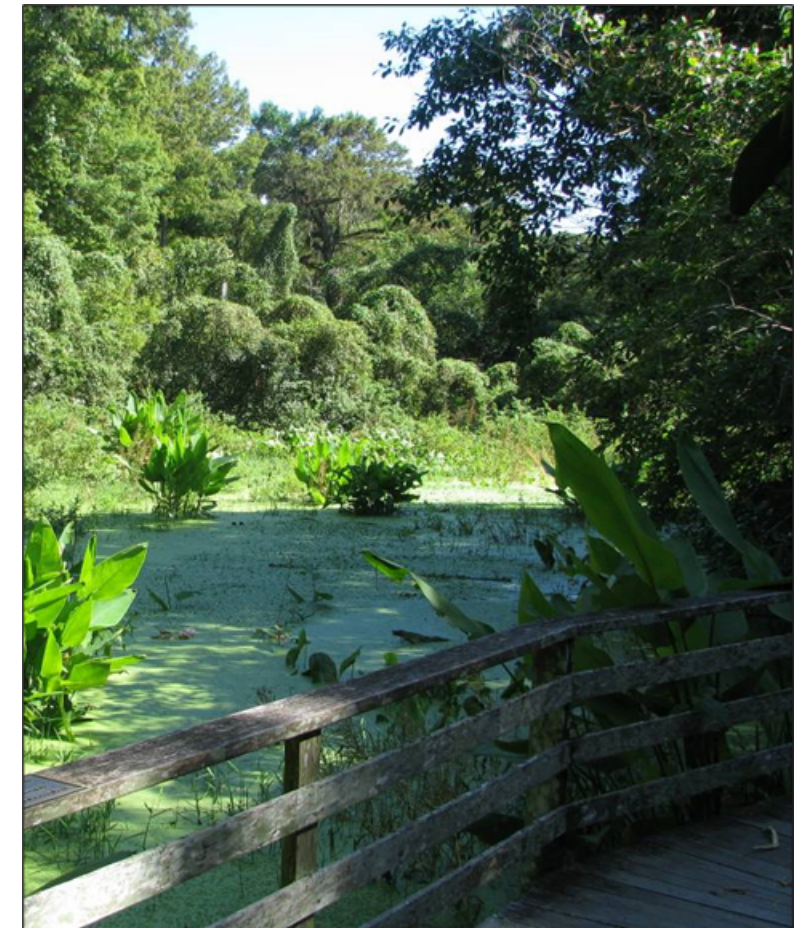
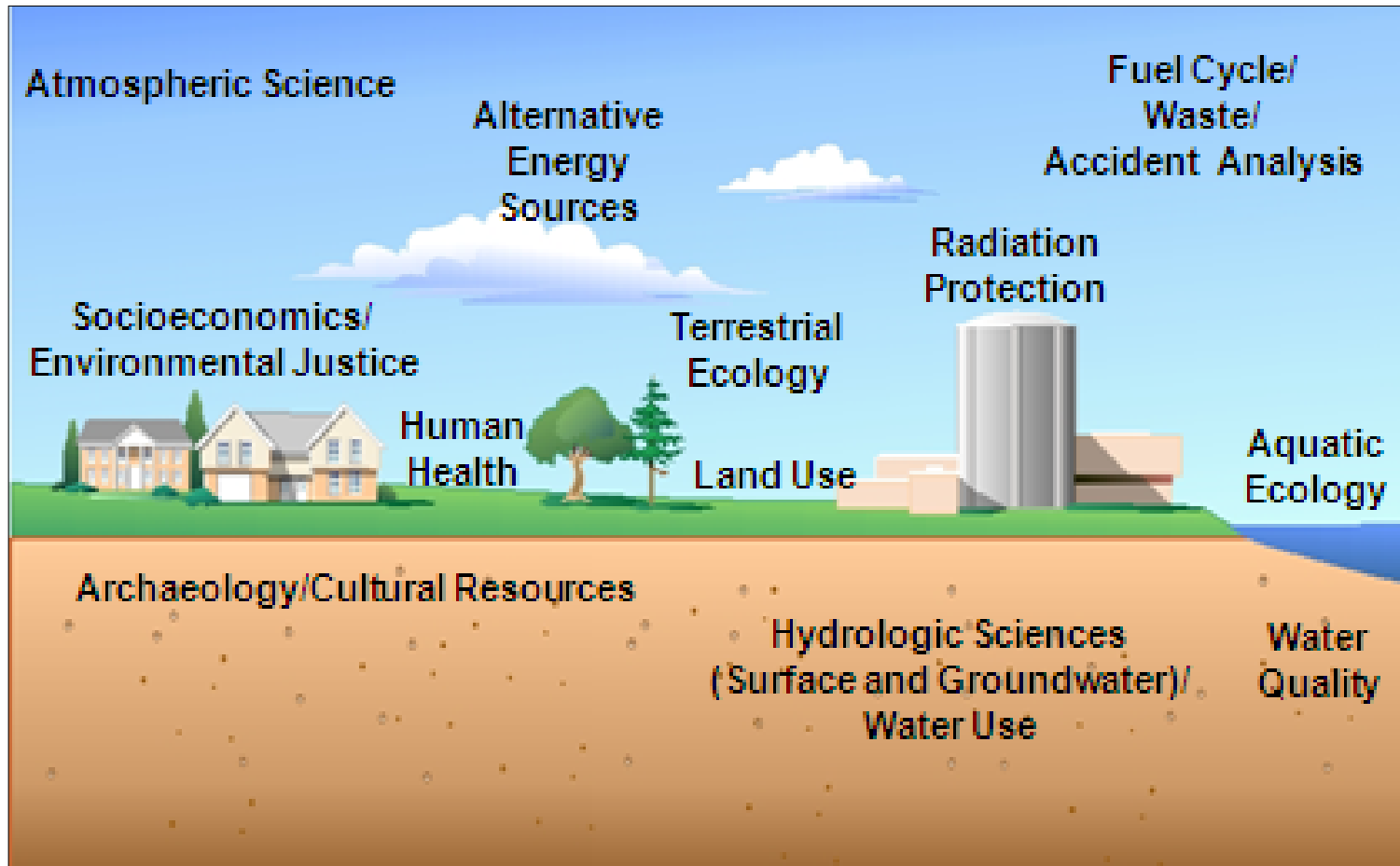
Draft EIS Public
Comment Period

- Historically, at least 60 days, with advertised meetings held near plant

Final EIS Development

- Approximately one year (based on complexity and number of comments on the draft EIS)

Resource Areas Addressed in NRC's NEPA Reviews



Each Subject Matter Expert describes the “affected environment” (baseline conditions) for their resource area and then describes the construction and operations consequences of the action and assigns an impact level, which is compared to the same impacts from reasonable alternatives. SMEs also describe “cumulative impacts” from any known past, present, or reasonably foreseeable future actions.

Types of Environmental Impacts to be Evaluated

Per 10 CFR 51.49(a)(3), the EIS must evaluate the **environmental impacts** that may reasonably be expected to result from the activities. 40 CFR 1508.1(g) describes these “effects or impacts” as follows:

- (1) Direct effects- caused by the action and occur at the same time and place
- (2) Indirect effects- caused by direct effects and are reasonably foreseeable
- (3) Cumulative effects- result from incremental effects when added to the effects of other “past, present, or reasonably foreseeable actions” regardless of who undertakes.
- (4) Effects on a range of resource areas- (e.g., ecology, historic and cultural, hydrology, economic, socio/ej,) whether direct, indirect or cumulative including beneficial and detrimental.

NRC's NEPA Impact Level Definitions

The three levels of environmental impacts are:

SMALL -Environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource.

MODERATE -Environmental effects are sufficient to alter noticeably, but not to destabilize, important attributes of the resource.

LARGE -Environmental effects are clearly noticeable and are sufficient to destabilize important attributes of the resource.

NOTE: NEPA requires the depth of analysis and the level of detail in an EIS must be commensurate with the expected level of impact.

NRC'S NEPA LEVEL OF DETAIL

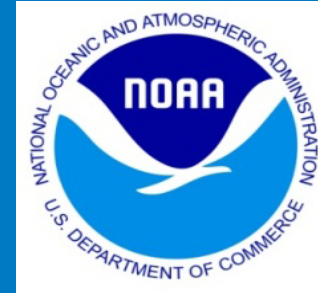
10 CFR Part 51

Appendix A to Subpart A

6. *Affected environment*

The environmental impact statement will succinctly describe the environment to be affected by the proposed action. Data and analyses in the statement will be **commensurate with the importance of the impact**, with less important material summarized, consolidated, or simply referenced. Effort and attention will be concentrated on important issues; useless bulk will be eliminated.

Coordination with Federal, State, local, and Tribal Government Agencies



NATHPO
National Association
of Tribal Historic
Preservation Officers



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Acronym Key

- Categorical Exclusion (CatEx)
- Environmental Assessment (EA)
- Finding of No Significant Impact (FONSI)
- Environmental Impact Statement (EIS)
- Record of Decision (ROD)
- Safety Evaluation Report (SER)
- Atomic Safety and Licensing Board Panel (ASLBP)
- Advisory Committee on Reactor Safeguards (ACRS)