



NRC Licensing Nuclear Power Plants

**Mallecia Sutton, Senior Project Manager
Advanced Reactor Licensing Branch
Office of Nuclear Reactor Regulation
Mallecia.Sutton@nrc.gov**

**Jack Cushing, Senior Project Manager
Environmental Center of Expertise
Office of Nuclear Material Safety and Safeguards
Jack.Cushing@nrc.gov**

Topics

- NRC's Tribal Policy Statement
- Licensing and Siting



NRC's Tribal Policy Statement

- The Tribal Policy Statement is centered on the following principles:
 - The NRC recognizes the Federal Trust Relationship With and Will Uphold its Trust Responsibility to Indian Tribes.
 - The NRC recognizes and Is Committed to a Government-to-Government Relationship with Indian Tribes.
 - The NRC Will Conduct Outreach to Indian Tribes.
 - The NRC Will Engage in Timely Consultation.
 - The NRC Will Coordinate with Other Federal Agencies.
 - The NRC Will Encourage Participation by State-Recognized Tribes.

NHPA Section 106 Consultation

- NRC consults with Tribes in accordance with the National Historic Preservation Act (NHPA) Section 106.
- NRC engages in government-to-government consultation with the tribes.
- Encourages applicants to engage with tribes during NRC's pre-application engagement.

Overview of Licensing a Nuclear Power Plant

- Pre-application engagement
- Staff prepares Safety Evaluation Report and Environmental Impact Statement, makes a recommendation to the Commission.
- EIS considers applicant purpose and need for the project
- Advisory Committee for Reactor Safeguards independently reviews the Safety Evaluation Report
- Hearing Process

PURPOSE OF REVIEW

- Provide reasonable assurance that a site can safely site a future nuclear power plant or plants from the standpoint of:
 - Site safety
 - Environmental protection
 - Emergency planning
 - Security



Siting

Some Critical Aspects

- First factor is the availability and identification of a suitable site.
- The site-specific conditions could also define unique critical safety and design interfaces, and mitigations for adverse environmental impacts.
- Licensing process provides early opportunities for Tribes to participate on a government-to-government basis.
- Licensing also require engagement and permits from state and local authorities.

Site Selection Basics

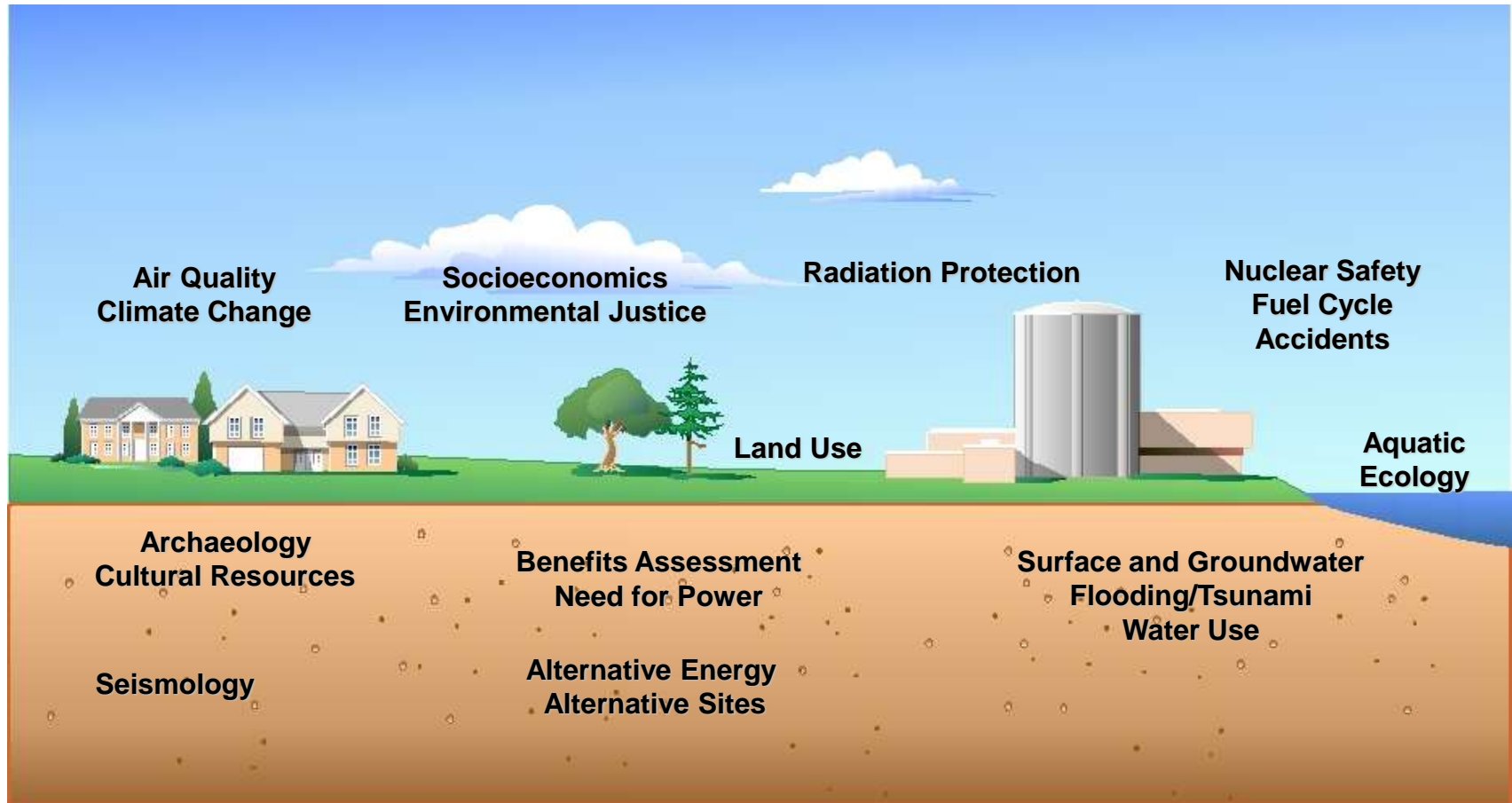
- Applicant identifies its preferred site and alternative sites
- NRC determines if site meets safety regulations (10 CFR 100)
- NRC evaluates the impacts to the proposed and alternative sites
- Alternative sites must be “reasonable.”

Site Selection Basics (cont'd)

- The alternative sites are compared to the proposed site to determine if any alternative is “obviously superior”
- If no alternative site is obviously superior, then the staff can recommend approval of that site
- If an alternative site is obviously superior, then the staff should recommend not approving the application



Resources Evaluated



Siting Considerations

- There is no “typical” site – standardization does not apply to a site. Each site is unique and involves different issues and considerations.
- Micro-reactors that are a few acres size and tens of megawatt output compared to a large reactor with thousands of megawatt output and hundreds of acres. Review is scaled to size of project.
- Pre-application interactions between the NRC and applicants are important to assure that applications are complete with all needed data and to effectively plan reviews.
- Close and early coordination by the NRC and applicants with other agencies and Tribes is a critical element of the site evaluation process.



Other Siting Considerations

- No-action alternative:
 - Required by NEPA
 - Impacts of not building the plant, considering purpose and need
- Energy alternatives:
 - Alternatives capable of meeting the purpose and need are compared to the proposed action
 - Includes consideration of conservation and energy efficiency
- System design alternatives:
 - Focuses on alternative cooling system designs, alternative water supplies
 - Some designs may not use cooling water



Questions