

Preliminary Results of the Vogtle Electric Generating Plant, Units 1 and 2 License Renewal Environmental Review



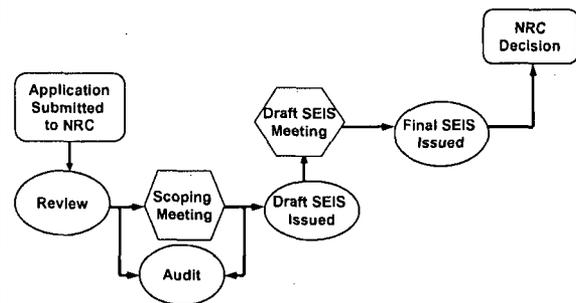
Meeting Overview

- Project and Process Background
- Results of environmental review
- Environmental review schedule
- How to submit comments outside this meeting
- Accept oral and written comments

License Renewal

- Current operating licenses expire on January 16, 2027 and February 9, 2029
- Southern Nuclear Operating Company requests authorization to operate Plant Vogtle, Units 1 and 2, for an additional 20 years

Environmental Review



License Renewal

- National Environmental Policy Act (NEPA) requires Federal agencies to use a systematic approach to consider environmental impacts
- NRC prepares a Supplemental Environmental Impact Statement (SEIS) for all proposed license renewals
- Public Involvement is part of this process

Environmental Review

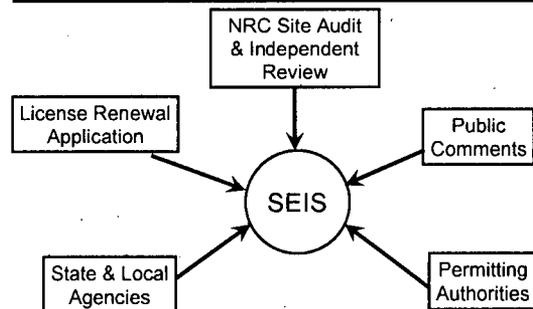
Scope

- Generic Environmental Impact Statement (GEIS)
 - 69 Category 1 issues
- Site-specific Supplemental Environmental Impact Statement (SEIS)
 - 23 remaining issues
- New and Significant Information

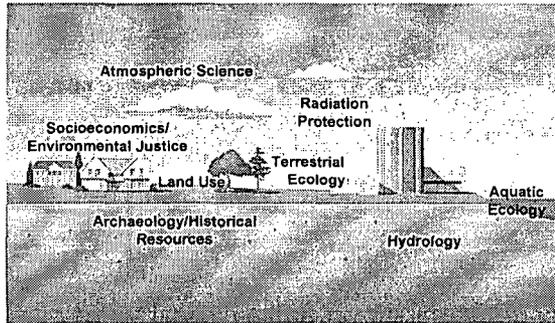
Decision Standard for Environmental Review

To determine whether or not the adverse environmental impacts of license renewal for Plant Vogtle are so great that preserving the option of license renewal for energy planning decisionmakers would be unreasonable.

Information Gathering



Team Expertise



Environmental Impacts of Continued Operation

- Cooling system
- Threatened or Endangered Species
- Radiological Impacts
- Postulated Accidents
- Cumulative Impacts



How Impacts are Quantified

- NRC-defined impact levels:
 - **SMALL:** Effect is not detectable or too small to destabilize or noticeably alter any important attribute of the resource.
 - **MODERATE:** Effect is sufficient to alter noticeably, but not destabilize important attributes of the resource.
 - **LARGE:** Effect is clearly noticeable and sufficient to destabilize important attributes of the resource.

Cooling System Impacts

- Twenty-Five Category 1 issues
- Preliminary findings
 - No new and significant information identified
 - GEIS concluded impacts are SMALL

Threatened or Endangered Species

- Site-specific issue
 - One Federal Threatened & Endangered aquatic species identified

- **Shortnose Sturgeon**



- Preliminary findings
 - Biological Assessment (Appendix E)
 - Impacts would be SMALL

Threatened or Endangered Species

- Site-specific issue
 - Seven Federal Threatened & Endangered terrestrial species identified

- Smooth Coneflower
 - Chanby's Dropwort
 - Reticulate Trillium
 - Wood Stork
 - Red-cockaded Woodpecker
 - American Alligator
 - Flatwoods Salamander



- Preliminary findings
 - Impacts would be SMALL

Radiological Impacts

- Category 1 issues
 - Radiation exposures to the public
 - Occupational radiation exposures
- Preliminary findings
 - No new and significant information identified
 - GEIS concluded impacts are SMALL

Postulated Accidents

- Design-basis accidents
- Severe accidents
 - Severe accident mitigation alternatives (SAMAs)

SAMA Evaluation Process

- 16 potential SAMAs considered
- 2 SAMAs identified as cost-beneficial
 - Neither relate to managing the effects of aging; therefore, neither are required as part of license renewal

Cumulative Impacts of Operation

- Considered impacts of renewal term operations combined with other past, present, and reasonably foreseeable future actions
- Evaluated to end of 20-year renewal term
- Preliminary Findings
 - Considered potential construction of proposed Units 3 and 4
 - Impacts could range from SMALL to LARGE

Alternatives

- License not renewed (No-action)
- Conservation
- Alternative energy sources
 - New generation (coal, natural gas, nuclear)
 - Purchased electrical power
 - Other alternatives (wind, solar, biomass, etc.)
 - Combination of alternatives



Alternatives

- Preliminary Findings
 - Potential impacts from NOT renewing licenses range from SMALL to LARGE
 - Environmental impacts of likely power-generation alternatives could reach MODERATE to LARGE significance in some impact areas

Preliminary Conclusions

- Impacts of license renewal are SMALL for all impact areas
- Impacts of likely power-generation alternatives, including not renewing the licenses, may reach MODERATE to LARGE in some impact areas
- The NRC staff's preliminary recommendation is that the environmental impacts of license renewal for Vogtle Units 1 and 2 are not so great that license renewal would be unreasonable

Plant Vogtle Environmental Review Milestones

- Draft Supplemental EIS issued April 2008
- Comment Period ends July 16, 2008
- Final Supplemental EIS to be issued January 2009

Additional Information

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- The draft SEIS and GEIS can be viewed at:
 - Burke County Library – 216 Highway 24 South, Waynesboro
 - Online: NRC Reading Room
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1437>

Submitting Comments

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