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# South Carolina Electric & Gas Company Virgil C. Summer Nuclear Station Units 2 and 3 Combined Licenses

Mandatory Hearing  
October 12-13, 2011

Environmental Overview – Panel 2

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# Topics

- Environmental Justice
- Memorandum of Understanding (MOU) with the U.S. Army Corps of Engineers (USACE)

# Environmental Justice

- Environmental Justice is defined as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies
- Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” (1994)
- NRC “Policy Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Actions” (69 FR 52040)

# Environmental Justice

- Environmental Report (ER) Section 2.5.4 identifies the minority and low-income populations
- ER Section 4.4.3 evaluates Environmental Justice as a socioeconomic impact during construction
- ER Section 5.8.3 evaluates Environmental Justice as a socioeconomic impact during operation
- ER Section 9.3 evaluates Environmental Justice for alternative sites
- ER evaluations follow guidance in NUREG-1555, “Standard Review Plans for Environmental Reviews for Nuclear Power Plants”

# Environmental Justice

- Evaluated 50-mile radius from proposed site
- ArcGIS 9.1 software and 2000 census data used to determine minority and low-income characteristics by census block group
  - 803 total census block groups in 50-mile radius
- Geographic area for the proposed site defined as South Carolina and North Carolina, independently, for analysis of block groups in each state
- 234 census block groups within the 50-mile radius have significant aggregate minority population percentages
- 45 census block groups within the 50-mile radius have a significant percentage of low-income households

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# Environmental Justice

## Construction

- Evaluated whether the health or welfare of minority and low-income populations could be disproportionately affected by construction activities
- Evaluated most likely environmental impact pathways (*e.g.*, land use, water quality, noise)
- Most adverse impacts SMALL, and some beneficial socioeconomic impacts
- Conclusion
  - No construction-related disproportionately high or adverse health or environmental effects impacting minority or low-income population health or welfare identified
  - Impacts would be SMALL, and no additional mitigation warranted

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# Environmental Justice Operation

- Evaluated whether the health or welfare of minority and low-income populations could be disproportionately affected by operations
- Evaluated most likely environmental impact pathways (*e.g.*, water quality, health, waste)
- Most adverse impacts SMALL, and some beneficial socioeconomic impacts
- Conclusion
  - No operations-related disproportionately high or adverse health or environmental effects impacting minority or low-income population health or welfare identified
  - Impacts would be SMALL, and no additional mitigation warranted

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# Environmental Justice Alternative Sites

- Evaluated in ER Section 9.3.3 for the alternative sites
  - Savannah River Site (Section 9.3.3.1)
  - Cope Generating Station Site (Section 9.3.3.2)
  - Saluda Site (Section 9.3.3.3)
  - Fairfield-1 Site (Section 9.3.3.4)
- Evaluation similar to that performed for V.C. Summer site
- Impacts related to Environmental Justice determined to be SMALL for all sites



# USACE MOU

- On September 12, 2008, the NRC and the USACE entered into the MOU
  - “Memorandum of Understanding Between U.S. Army Corps of Engineers and U.S. Nuclear Regulatory Commission on Environmental Reviews Related to the Issuance of Authorizations to Construct and Operate Nuclear Power Plants”
  - The purpose of the MOU was to establish a framework for early coordination and participation to ensure timely review of proposed nuclear power plant applications

# USACE MOU

- MOU primarily affects the NRC staff
- Applicant's perspective:
  - NRC staff and USACE staff jointly prepared a complete, timely, and thorough Final Environmental Impact Statement
  - Participation in public meetings
  - Extensive on- and off-site activities
  - USACE emphasis on wetlands impacts and mitigation actions