



Presentation to the Commission

Combined License Application Review Vogtle Units 3 and 4

Environmental Overview Panel 1

September 27 – 28, 2011

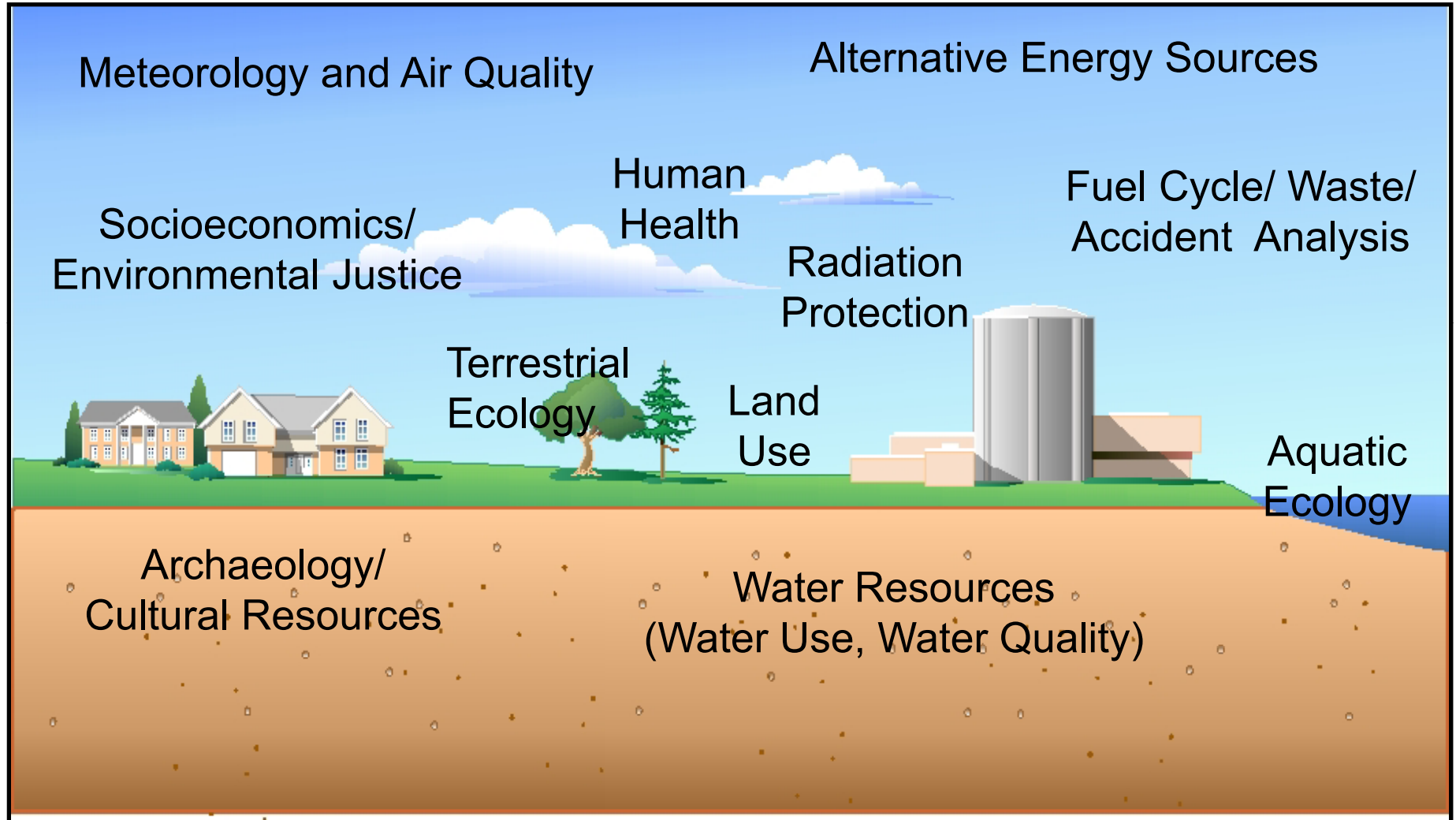
Environmental Review: Presentation Overview

- **Explanation of role of Final Environmental Impact Statement (FEIS) for the Vogtle Early Site Permit (ESP) proceeding.**
- **Description of staff evaluation process.**
- **Summary of staff's COL analysis and conclusions as documented in Supplemental EIS (SEIS).**

Environmental Review: Role of ESP FEIS

- **COL applications referencing ESP**
 - **By regulation, review takes the form of a supplement to ESP FEIS**
 - **Scope of review focused by 10 CFR 51.92**
 - **Emphasis on new and significant information**
- **Vogtle COL application references the Vogtle Early Site Permit and Limited Work Authorization (August 2009)**
- **ESP FEIS is the key starting point for development of COL SEIS**

Resource Areas



Source U.S. NRC

Environmental Review: Role of ESP FEIS

- **Vogtle ESP**
 - **First ESP not to use “Plant Parameter Envelope”**
 - **No unresolved environmental issues at ESP stage**
 - **Even “optional” issues addressed**
 - **Minimal time gap between ESP and COL applications**

Environmental Review: Role of ESP FEIS

- **Summary of Environmental Impact Conclusions in Plant Vogtle ESP FEIS**
 - SMALL impacts for air quality, water use and quality, environmental justice, health (radiological and non-radiological), and from postulated accidents and fuel cycle.
 - SMALL to MODERATE impacts for land use, ecology, and socioeconomics.
 - MODERATE impacts for historic and cultural resources.
 - For many resource areas, EIS analysis explained why impacts would only be temporary or would be mitigated.

Environmental Review: Role of ESP FEIS

- **Summary of ESP FEIS (contin.)**
 - Staff concluded SMALL impacts in majority of resource areas
 - Air quality
 - Water use and quality
 - Environmental justice
 - Health impacts, both radiological and non-radiological)
 - Postulated accidents
 - Fuel cycle

Environmental Review: Role of ESP FEIS

- **Summary of ESP FEIS (contin.)**
 - SMALL to MODERATE impacts
 - Land use
 - Ecology
 - Socioeconomics
 - MODERATE impacts
 - Historic and cultural resources

Environmental Review: Role of ESP FEIS

- **Summary of ESP FEIS (contin.)**
 - Demonstrated need for power
 - No environmentally preferable energy or system design alternatives
 - No environmentally preferable alternative site; therefore no obviously superior site
- **SEIS review aligned with structure of ESP FEIS**

Environmental Review: Staff Review Process

- **Multi-disciplinary team from NRC and Pacific Northwest National Laboratory (PNNL)**
 - **Reviewers with expertise in numerous technical and scientific fields**
 - **Prior experience with development of NRC EISs**
 - **Most team members also reviewers for Vogtle ESP**

Environmental Review: Staff Review Process

- **Focus on new and significant information**
 - **Staff guidance**
 - **NUREG-1555, Environmental Standard Review Plan (ESRP)**
 - **Provides definitions of new and significant**
 - **Describes methods for identifying and evaluating new information**
 - **Site audits**
 - **Used both for evaluating applicant's process and for gathering information for staff's independent evaluation**
 - **Evaluation of applicant's process for identifying new and significant information**

Environmental Review: Staff Review Process

- **Focus on new and significant information**
 - **Requests for additional information (RAIs)**
 - **Interactions with public and with governmental agencies**
 - **Appropriate Federal, State, local, and Tribal coordination**
 - **Received public comments on Draft SEIS**
 - **Remained aware of design changes associated with safety review (including AP1000)**

Environmental Review: SEIS Analysis and Conclusions

- **The staff evaluated new information warranting further analysis in several areas.**
- **SEIS describes staff analysis of whether the new information changed the staff conclusion.**
- **With the exception of terrestrial ecology, the impact levels in the SEIS did not change from the ESP FEIS.**

Environmental Review: SEIS Analysis and Conclusions

- **Examples of resource areas with new information warranting further analysis:**
 - **Land use**
 - **Small change in affected acreage**
 - **Meteorology and air quality**
 - **Updated traffic analysis supported the ESP-stage staff conclusion; verified continued attainment of NAAQS standards**
 - **Water use and quality**
 - **Minor revisions to intake structure design and location; hydrological alterations remain localized and temporary**
 - **No change in thermal plume size associated with small increase in effluent discharge rate**

Environmental Review: SEIS Analysis and Conclusions

- **Examples of resource areas with new information warranting further analysis (contin.):**
 - **Terrestrial ecology**
 - **Aquatic ecology**
 - **Section 401 & Section 404 / Section 10 permits obtained**
 - **Conference consultation on Atlantic sturgeon, no change to potential impacts examined at ESP-stage**
 - **Historic/cultural resources**
 - **Historic cemetery identified; MOU with GA SHPO to protect site from disturbance**

Environmental Review: SEIS Analysis and Conclusions

- **Examples of resource areas with new information warranting further analysis (contin.):**
 - **Need for power**
 - **GA Public Service Commission certification issued**
 - **Supports ESP conclusions regarding need for power in the region of interest**
 - **Alternatives, consistent with 10 CFR 51.92**
 - **Change in GPC demand-side management plan was already accounted for in Integrated Resource Plan and not available to offset need for new baseload**
 - **New EPA rule regarding emissions from stationary source facilities would not alter comparative relationship between Vogtle units and viable energy alternatives evaluated in ESP FEIS**

Environmental Review: Second LWA

- Applicant submitted second LWA request in October 2009.
 - Per regulations, application includes ER for LWA.
- Impacts previously evaluated in ESP EIS in connection with LWA-1.
- COL SEIS references previous evaluation and confirmed that analysis and conclusions remained valid for LWA-2 activities.
- Staff NEPA review in SEIS accordingly supports issuance of both COLs and LWAs.

Environmental Review: Integration of Analysis for ESP Amendments

- License Amendment Requests (LAR) in April and May 2010 addressing backfill issues.
- Staff developed three Environmental Assessments for the LARs.
- Additional impacts outside the previously analyzed plant footprint to southeastern pocket gopher and sandhills milkvetch.
- Changed impact level to MODERATE for terrestrial ecology in the COL FEIS.

Environmental Review: Summary

- **Review approach consistent with 10 CFR 51.92 & staff guidance.**
- **Realized benefits of supplementing a recent and thorough ESP FEIS.**
- **Drew on experience of multi-disciplinary team.**
- **Supports issuance of COLs and second LWAs.**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of)
)
SOUTHERN NUCLEAR OPERATING CO.) Docket Nos. 52-025-COL and 52-026-COL
)
(Vogtle Electric Generating Plant)
Units 3 and 4))
)

CERTIFICATE OF SERVICE

I hereby certify that copies of "Exhibit NRC000014" have been served upon the following persons by Electronic Information Exchange this 20th day of September, 2011:

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Dated at Rockville, Maryland
this 20th day of September, 2011