
South Carolina Electric & Gas Company

Virgil C. Summer Nuclear Station Units 2 and 3

Combined Licenses

Mandatory Hearing
October 12-13, 2011

Introduction and Overview

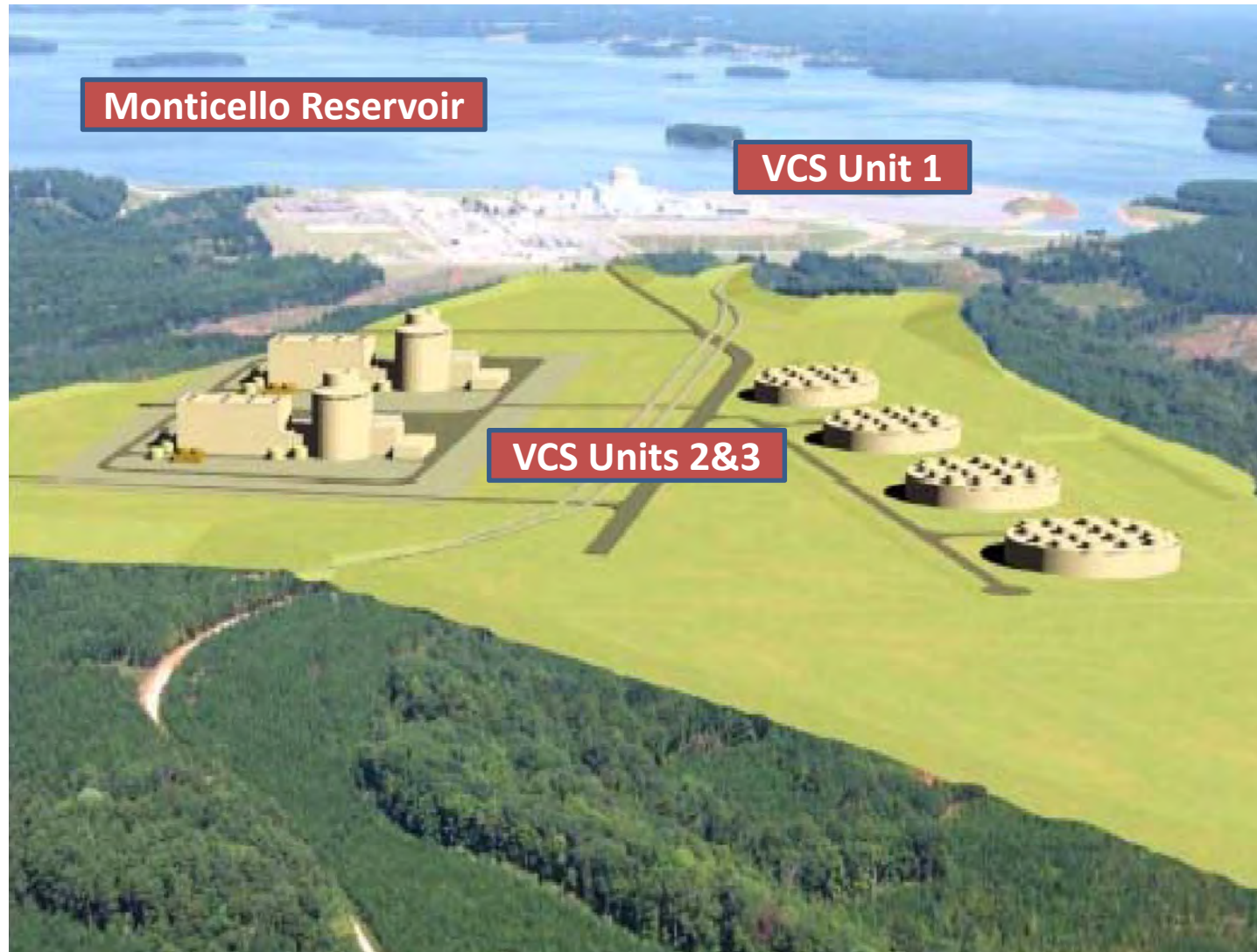
Stephen Byrne (SCE&G)

Alfred Paglia (SCE&G)

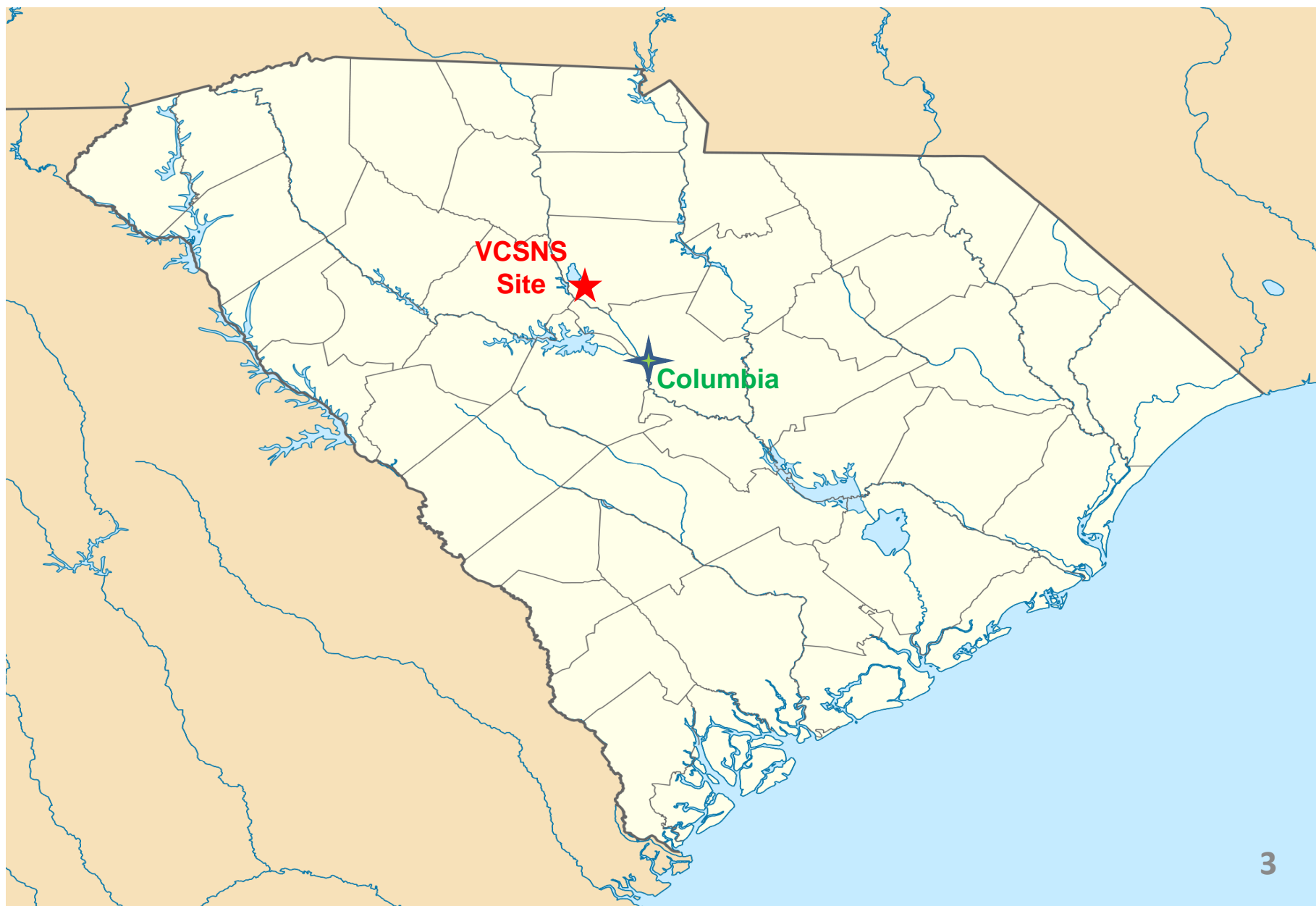
Amy Monroe (SCE&G)

April Rice (SCE&G)

VCSNS Site



VCSNS Site Location



VCSNS Site Development

VCSNS Unit 1

Monticello
Reservoir

Fairfield Pumped
Storage (on Parr
Reservoir)

VCSNS Site Development



VCSNS Site Development



VCSNS Site Development



November 2009

VCSNS Site Development



VCSNS Site Development



VCSNS Site Development



Application Content

- Combined License Application (COLA) for two units submitted March 2008
- Meets content requirements of Part 52, Subpart C, “Combined Licenses”
- Incorporates by Reference the AP1000 Design Control Document (DCD) Amendment
- First Subsequent (S)-COLA
- NRC Guidance Utilized
 - Regulatory Guide 1.206
 - NUREG-0800 (as updated for Part 52)
 - NUREG-1555
- Other industry documents promoting standardization

VCSNS COLA Submittal

- Incorporates by Reference the AP1000 DCD, Revision 19
- 17 distinct parts to the application
 - 10 containing primarily standard AP1000 information
 - 5 of these parts contain program information that is essentially identical to the Reference (R)-COLA
 - 7 site-specific parts
- S-COLA Overview

VCSNS COLA Safety Content

- Compliance with 10 CFR Part 52 Requirements
 - Sections 52.73, 52.75, 52.77, 52.79 and 52.80
- Compliance with 10 CFR 50.33
- Compliance with 10 CFR Part 52, Appendix D
- Utilized NRC Guidance – Regulatory Guide 1.206 and NUREG-0800
- Final Safety Evaluation Report (FSER) issued August 2011

VCSNS COLA Safety Content - Departures

- Standard
 - Final Safety Analysis Report (FSAR) Numbering and Organization (administrative)
 - Voltage Regulating Transformer Design
- Site-specific
 - FSAR Numbering and Organization for Chapter 2 (administrative)
 - Emergency Facility Locations
 - Wet-bulb

VCSNS COLA Safety Content - Exemptions

- Standard
 - DCD Numbering and Organization
 - Material Control and Accountability (MC&A) Program Description (Consistent with Part 50 requirements)
- Site-specific
 - Wet-bulb Exemption from DCD Site Parameter (Maximum Safety Noncoincident Wet Bulb Temperature)

VCSNS Environmental Report (ER)

- Prepared using NUREG-1555
- Two revisions to the ER
- Table 1.3-1 delineates 10 CFR Part 51 requirements
- Utilized previous environmental studies
 - Unit 1 License Renewal data
 - Unit 1 monitoring data
- Final Environmental Impact Statement (FEIS) issued April 2011

ER Content

- Chapter 1 – Introduction
- Chapter 2 – Environmental Description
- Chapter 3 – Plant Description
- Chapter 4 – Impacts of Construction
- Chapter 5 – Impacts of Station Operation
- Chapter 6 – Environmental Measurements and Monitoring Programs

ER Content

- Chapter 7 – Environmental Aspects of Postulated Accidents
- Chapter 8 – Need for Power
- Chapter 9 – Proposed Action Alternatives
- Chapter 10 – Environmental Consequences of the Proposed Action
- Appendix A – Agency Letters

Resource Areas

- Cultural Resources
- Aquatic and Terrestrial Ecology
- Water Use
- Land Use
- Socioeconomics/Environmental Justice
- Radiation Protection
- Alternatives

Key Agency Interfaces

SC DEPT. OF HEALTH AND ENVIRONMENTAL CONTROL

- Stormwater Permits for land disturbance
- Batch Plant Air Permit
- Construction Permit for Water/Wastewater
- National Pollutant Discharge Elimination System Permit for Water/Wastewater
- 401 Water Quality Certification

OTHER AGENCIES

- SC Dept. of Transportation Road Modification Permit
- Norfolk Southern Railroad Modification Permit
- State Historic Preservation Officer/U.S. Army Corps of Engineers (USACE) MOU
- SC Public Service Commission (CPCN)
- US DOE (spent fuel contract)
- FERC License Amendment
- USACE 404 Wetlands Permit
- SC Department of Natural Resources, US Fish and Wildlife Service, National Marine Fisheries Service

ER Environmental Conclusions

- Impacts of the project are SMALL except:
 - Localized traffic during construction (MODERATE to LARGE)
 - Transmission line construction (MODERATE)
- Benefits include:
 - Fuel diversity and emissions avoidance
 - Socioeconomic: jobs, local spending, and taxes

VCSNS Site

