

SNC000007



# Vogtle 3 & 4 COL

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Southern Nuclear Operating Company  
VEGP Units 3 & 4  
Combined Licenses and  
Limited Work Authorization

Mandatory Hearing

Safety – Panel 2

September 27, 2011

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## **Selected Topics – Chapters 3 & 6**

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- ◆ **Soil Structure Interaction**
- ◆ **LWA-B**
- ◆ **Squib Valves**
- ◆ **Engineered Safety Features (ESF) Systems**
- ◆ **Containment Cleanliness Program**
- ◆ **Control Room Habitability**



# Soil Structure Interaction

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- ◆ VEGP GMRS compared to AP1000 CSDRS showed exceedances at certain frequency ranges, therefore a site specific analysis was performed.
- ◆ A 2-D VEGP-specific seismic evaluation performed for the ESP demonstrated the acceptability of the Vogtle site for LWA-A.
- ◆ A 3-D VEGP-specific seismic evaluation was performed for the COLA. This evaluation considered.
  - ◆ In-Structure Response Spectra for six key locations
  - ◆ Lower bound, best-estimate, and upper bound soil properties
- ◆ The 3-D model results provided in the COLA demonstrate that the standard AP1000 plant certified design is fully acceptable for the Vogtle site.

## LWA-B

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- ◆ LWA-B requests authorization to continue safety-related NI foundation work
    - ◆ base mat reinforcing steel, including the rebar and other embedded items
    - ◆ sumps and drain lines
    - ◆ base mat concrete
  - ◆ ESP FEIS resolved LWA-B environmental impacts
  - ◆ Foundation design incorporated by reference from AP1000 DCD
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# Squib Valves

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- ◆ Design and qualification addressed by DCD
  - ◆ This information incorporated by reference into COLA at FSAR Sections 3.1 through 3.11, and 3A through 3G, 3H & 3I
- ◆ COLA addresses testing in FSAR Subsection 3.9.6.2.2
  - ◆ IST Program will address industry and regulatory guidance
  - ◆ IST program will include lessons learned from:
    - ◆ Design process for the valves
    - ◆ Qualification process for the valves



# Engineered Safety Feature Systems

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- ◆ Fully addressed by DCD
  - ◆ Chapter 6 – Engineered Safety Features
  - ◆ Design Descriptions and Evaluations
  - ◆ ITAAC by system
  - ◆ This information incorporated by reference into COLA at FSAR Chapter 6
  
- ◆ COLA FSAR discusses only ESF materials
  - ◆ FSAR Section 6.1
  - ◆ COL 6.1-1 - controlling special features fabrication
  - ◆ COL 6.1-2 - addresses coatings programs
    - ◆ Applies applicable quality assurance controls
    - ◆ Applies applicable industry and NRC guidance



# Containment Cleanliness Program

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- ◆ DCD subsection 6.3.8.2 addresses Long-Term Recirculation Water availability following a LOCA
  - ◆ Recirculation screen design
  - ◆ Testing to assess screen performance & downstream effects
  - ◆ Completed study of effects of screen and downstream effect/performance on long-term cooling
  - ◆ COL Item to address preparation of Containment Cleanliness Program
- ◆ STD COL 6.3-1 describes program to minimize amount of debris left in containment following entry/exit
  - ◆ Addresses containment entry/exit, housekeeping, and a sampling program

# Control Room Habitability

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- ◆ DCD addresses generic information
  - ◆ Tier 2 Section 6.4 – Habitability Systems
  - ◆ Design Descriptions and Evaluations
  - ◆ ITAAC by system
  - ◆ This information incorporated by reference into COLA at FSAR Section 6.4
  
- ◆ COLA FSAR addresses site specific considerations
  - ◆ Subsection 2.2.3 – Evaluation of Potential Accidents
  - ◆ Subsection 6.4.3 – Procedures and training
  - ◆ Subsection 6.4.4 – Site-specific chemicals
  - ◆ Subsection 6.4.4 – Dual unit evaluations



- ◆ ACRS      Advisory Committee on Reactor Safeguards
- ◆ ESF      Engineered Safety Features
- ◆ COL      Combined License
- ◆ COLA      Combined License Application
- ◆ DCD      Design Control Document
- ◆ FSAR      Final Safety Analysis Report
- ◆ IST      In-Service Testing
- ◆ ITAAC      Inspections, Tests, Analyses, and  
Acceptance Criteria

## BEFORE THE COMMISSION

**September 20, 2011**

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Respectfully submitted,

(Original signed by M. Stanford Blanton)

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