



Vogtle 3 & 4 COL

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

Mandatory Hearing

Safety – Panel 2

September 27, 2011

Amy Aughtman – SNC
Don Moore – SNC
Wes Sparkman – SNC
Eddie Grant – NuStart

Selected Topics – Chapters 3 & 6

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



Soil Structure Interaction

- ◆ 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

- ◆ 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
-



Squib Valves

- ◆ 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

- ◆ 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

- ◆ 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

- ◆ 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



Abbreviations and Acronyms

- ◆ 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

Office of Commission Appellate
Adjudication
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
(E-mail: ocaamail@nrc.gov)

Charles Pierce
Southern Nuclear Operating Company
42 Inverness Center Parkway
Birmingham, AL 35242
(E-mail: CRPIERCE@southernco.com)

Kathryn M. Sutton
Mary Freeze
Morgan, Lewis & Bockius, LLP
1111 Pennsylvania Ave., N.W.
Washington, DC 20004
(E-mail: ksutton@morganlewis.com;
mfreeze@morganlewis.com)

Office of the Secretary
Mail Stop O-16C1
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
(E-mail: HEARINGDOCKET@nrc.gov)

Anita Ghosh
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
(E-mail: anita.ghosh@nrc.gov)

Rebecca Giitter
U.S. Nuclear Regulatory Commission
Rulemakings and Adjudications Staff
Office of the Secretary
Washington, D.C. 20555-0001
(E-mail: rebecca.giitter@nrc.gov)

Respectfully submitted,

(Original signed by M. Stanford Blanton)

M. Stanford Blanton, Esq.
BALCH & BINGHAM LLP
1710 Sixth Avenue North
Birmingham, AL 35203-2015
Telephone: (205) 251-8100
Facsimile: (205) 226-8798
COUNSEL FOR SOUTHERN NUCLEAR
OPERATING COMPANY

Kathryn M. Sutton, Esq.
MORGAN, LEWIS & BOCKIUS LLP
1111 Pennsylvania Avenue, NW
Washington, DC 20004
Telephone: (202) 739-5738
Facsimile: (202) 739-3001
CO-COUNSEL FOR SOUTHERN NUCLEAR
OPERATING COMPANY