



Presentation to the Commission

Combined License Application Review Vogtle Units 3 and 4

Overview

September 27 – 28, 2011

Overview of Staff's review of Vogtle COL Application

- Vogtle COL Application
- Vogtle COL Overview-Safety Review
- Vogtle COL Overview-Environmental Review
- Summary of Staff Findings—COL Application
- Status of AP1000 DCA
- Overview of Staff's Presentation

Vogtle COL Application

- On March 28, 2008, SNC submitted an application for the planned Vogtle Units 3 and 4, which incorporates by reference the ESP site safety analysis report (SSAR) and the Westinghouse AP1000 Design Certification (DC) and DC amendment
- Vogtle ESP/LWA1 was granted on August 26, 2009.
- Construction activities approved under LWA-1 include:
 - Installation of engineered backfill,
 - Retaining walls,
 - Lean concrete backfill, mudmats,
 - Waterproof membrane.

Vogtle COL Application

- **Vogtle application consists of:**
 - Material incorporated by reference (IBR) from the ESP and AP1000 DCD
 - Staff's safety evaluation for ESP reflected in NUREG-1923
 - Staff's environmental evaluation for ESP reflected in NUREG-1872, "Final Environmental Impact Statement for an Early Site Permit (ESP) at the Vogtle Electric Generating Plant Site"
 - Staff's safety evaluations for three amendments to ESP in May-June 2010
 - Staff's safety evaluation for DC reflected in NUREG-1793 and its supplements and the DC amendment SER issued in August 2011
 - Standard content material
 - Vogtle's safety evaluation for standard content generally references Bellefonte safety evaluation report with open items
 - Vogtle's safety evaluation provides the basis for standard content open item resolution

Vogtle COL Application

- **Vogtle application consists :**
 - Vogtle plant-specific information
 - Second LWA request received October 2, 2009, consisting of :
 - Installation of reinforcing steel for the nuclear island foundation base slab
 - Sumps
 - Drain lines and other embedded items
 - Placement of concrete for the nuclear island foundation base slab
 - LWA request incorporates AP1000 design by reference

Vogtle COL Overview: Safety Review

- **Use of Design Centered Review Approach**
 - Design-centered review approach discussed in Regulatory Issue Summary 2006-06, “New Reactor Regulatory Issue Summary Licensing Review Approach.”
 - Endorsed by the Commission in Staff Requirements Memorandum SECY-06-0187, “Semiannual Update of the Status of New Reactor Licensing Activities and Future Planning for New Reactors,” dated November 16, 2006.
 - Bellefonte 3 and 4 initial Reference COL.
 - Safety evaluation report with open items issued for Bellefonte and publicly available.

Vogtle COL Overview: Safety Review

- **RCOL Applicant Transition**

- In April 2009, NuStart Energy Development, LLC, changed the RCOL designation for the AP1000 design center from Bellefonte 3 and 4 to Vogtle 3 and 4.
- The transition of the RCOL from Bellefonte 3 and 4 to Vogtle 3 and 4 occurred after the issuance of the Bellefonte 3 and 4 SER with open items.
- The NRC staff concluded that the Bellefonte evaluation material identified as Standard in the Bellefonte SER was directly applicable to the Vogtle review.
- Standard content material from the FSER for the RCOL (Vogtle) application includes evaluation material from the SER with open items for the Bellefonte COL application.

Vogtle COL Overview: Safety Review

- **Advisory Committee on Reactor Safeguards Review:**
 - Several presentations made to the AP1000 ACRS Subcommittee (three meetings) on the Bellefonte SER with open items
 - Vogtle advanced safety evaluation with no open items presented to the AP1000 Subcommittee (four meetings) and Full Committee (one meeting)
 - ACRS letter report received January 24, 2011
 - Staff response provided March 3, 2011
- Staff issued Vogtle FSER on August 5, 2011

Vogtle COL Overview: Summary of Findings

- Summary of Findings in accordance with 10 CFR 52.97 (a)(1)
 - The applicable standards and requirements of the Atomic Energy Act and the Commission's regulations have been met,
 - Required notifications to other agencies or bodies have been duly made,
 - There is reasonable assurance that the facility will be constructed and will operate in conformity with the license, the provisions of the Atomic Energy Act, and the Commission's regulations,
 - The applicant is technically and financially qualified to engage in the activities authorized and,
 - Issuance of the license will not be inimical to the common defense and security or to the health and safety of the public.
 - The findings required by 10 CFR Part 51 can be made.
 - In addition, with respect to the LWA request, the staff also concludes that the applicable standards and the requirements of the Act, and the Commission's regulations applicable to the activities to be conducted under the LWA, have been met.

Vogtle COL Overview: Environmental Review

- For a COL application that references an ESP, the NRC staff prepares a supplement to the ESP final environmental impact statement
- A COL applicant referencing an ESP need not submit information or analyses regarding environmental issues that were resolved in the ESP EIS, except to the extent that the COL applicant has identified new and significant information regarding such issues
- NUREG-1872, the FEIS for the ESP, was issued in August 2008

Vogtle COL Overview: Environmental Review

- Staff performed a detailed environmental review which included:
 - Conducting Site Audits
 - September 28 – October 1, 2009
 - May 3 – 5, 2010
 - Issuing Site Audit Reports
 - Communicating with Federal, State, and local agencies and Tribes

Vogtle COL Overview: Environmental Review

- Issued draft supplemental EIS in September 2010
 - Held public meeting on October 7, 2010, to provide an overview of the staff's preliminary recommendations and solicit comments on the draft supplemental environmental impact statement (SEIS)
 - Developed responses to comments received on the draft SEIS which were included in the final SEIS
- NUREG-1947 recommendation related to the environmental aspects of the proposed action is that the COLs and LWAs should be issued

Vogtle COL Overview: Summary of Findings

- Summary of Findings in accordance with 10 CFR51.107(a), (d)
 - Determine that the requirements of Section 102(2)(A), (C), and (E) of NEPA and the regulations in 10 CFR Part 51 have been met;
 - Determine after independently considering the final balance among conflicting factors contained in the record of the proceeding that the appropriate action to be taken is issuance of the COLs and LWAs;
 - For the LWA request, determine that the redress plan will adequately redress the activities performed under the LWA if the activities are terminated or the COLs are denied;
 - Determine, after weighing the environmental, economic, technical, and other benefits against environmental and other costs, and considering reasonable alternatives, that the COLs and LWAs should be issued;
 - Determine that the staff's NEPA review has been adequate.

Status of AP1000 DCA

- Status of rulemaking
 - Appendix D to 10 CFR 52 constitutes the standard design certification for the AP1000 design (Revision 15 of DCD)
 - Application to amend the AP1000 DCR and Revision 16 submitted on March 26, 2007
 - Notice of proposed rulemaking published February 24, 2011, based on DCD Revision 18
 - 75-day comment period ended May 10, 2011
 - Over 13,000 comments received
 - Staff is finalizing responses to comments

Status of AP1000 DCA

- AP1000 DCD Revision 19
 - DCD Revision 19 issued June 13, 2011, to clarify and update:
 - Peak containment pressure analysis
 - Shield building design methodology
 - Other portions of the application based on staff comments on DCD Revision 18
 - FSER based on Revision 19 issued on August 5, 2011
 - ACRS AP1000 subcommittee briefed on DCD Revision 19 on August 16, 2011
 - ACRS Full Committee briefed on September 8, 2011
 - Final rulemaking package to the Commission scheduled for October 2011

Vogtle Overview of Panel Presentations

Panel Number	Issues to be Discussed	Evaluation
SER Panel 1	<ul style="list-style-type: none"> • Novel issue associated with the issuance of licenses under 10 CFR Parts 30,40, and 70 • Overview of ESP information incorporated by reference • Overview of shield building design incorporated by reference 	FSER chapters 1, 2, and 3
SER Panel 2	<ul style="list-style-type: none"> • Soil structure interaction • Second LWA request • ACRS recommendation regarding squib valve testing • Overview of information incorporated by reference associated with containment pressure evaluation, containment sump redesign, and control room design • ACRS recommendation on the Vogtle COL with respect to the containment cleanliness program • VEGP control room habitability from a toxic gas perspective 	FSER chapters 3 and 6
SER Panel 3	<ul style="list-style-type: none"> • Overview of aircraft impact analysis incorporated by reference • Seismic margins analysis • External events • Novel issue associated with review of loss of large areas of the plant due to explosions or fires 	FSER Chapters 19, 15, 7, and 8

Vogtle Overview of Panel Presentations

Panel Number	Issues to be Discussed	Evaluation
SER Panel 4	<ul style="list-style-type: none"> • Overview of emergency planning information that is incorporated by reference from the ESP • Novel issue associated with cyber security • Overview of information incorporated by reference associated with the spent fuel pool design • COL information associated with the raw water system • Cost benefit analysis of radioactive waste system augmentation • First plant only and first 3 plant only testing 	FSER chapters 13, 9, 12, and 14
Environmental Overview Panel 1	<ul style="list-style-type: none"> • Novel issue associated with the process used to develop the FSEIS in light of the amendments to the referenced ESP • Explanation of the role of the Vogtle ESP FEIS • Description of the staff's evaluation process • Summary of the staff's analysis and conclusion in the SEIS with respect to key environmental areas encompassed by the review 	FSEIS

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 NRC000009" 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