

## Vogle PEmails

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**From:** Patel, Chandu  
**Sent:** Wednesday, January 24, 2018 10:22 AM  
**To:** 'Chamberlain, Amy Christine'; 'Sparkman, Wesley A.' (WASPARKM@southernco.com)  
**Cc:** Vogle PEmails; Drzewiecki, Timothy; Palmrose, Donald  
**Subject:** Audit Plan for Vogle Units 3 and 4, LAR 17-027  
**Attachments:** LAR 17-027 Audit Plan.docx

Hi,

Please see the attached audit plan for Vogle Unit 3 and 4, license amendment request 17-027. This plan is entered in to the official record via this e-mail. Please let me know if you have any questions.

Sincerely,  
Chandu Patel

**Hearing Identifier:** Vogtle\_COL\_Docs\_Public  
**Email Number:** 208

**Mail Envelope Properties** (BN6PR09MB2259A9E66CDCF7AAFA94D49582E20)

**Subject:** Audit Plan for Vogtle Units 3 and 4, LAR 17-027  
**Sent Date:** 1/24/2018 10:21:33 AM  
**Received Date:** 1/24/2018 10:21:38 AM  
**From:** Patel, Chandu

**Created By:** Chandu.Patel@nrc.gov

**Recipients:**

"Vogtle PEmails" <Vogtle.PEmails@nrc.gov>  
Tracking Status: None  
"Drzewiecki, Timothy" <Timothy.Drzewiecki@nrc.gov>  
Tracking Status: None  
"Palmrose, Donald" <Donald.Palmrose@nrc.gov>  
Tracking Status: None  
"Chamberlain, Amy Christine" <ACCHAMBE@southernco.com>  
Tracking Status: None  
"Sparkman, Wesley A.' (WASPARKM@southernco.com)" <WASPARKM@southernco.com>  
Tracking Status: None

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MESSAGE	257	1/24/2018 10:21:38 AM
LAR 17-027 Audit Plan.docx	23253	

**Options**

**Priority:** Standard  
**Return Notification:** No  
**Reply Requested:** No  
**Sensitivity:** Normal  
**Expiration Date:**  
**Recipients Received:**

**Southern Nuclear Operating Company**  
**Audit Plan for Vogtle Electric Generating Plant Units 3 and 4**  
**Docket Nos. 52-025 and 52-026**  
**License Amendment Request 17-027**  
**Reactor Coolant System Vacuum Fill and ITAAC for Containment Floodup**

A. Background

By letter dated September 27, 2017 Southern Nuclear Operating Company (SNC) submitted license amendment request (LAR) 17-027 requesting changes to technical specifications to allow reactor coolant system (RCS) vacuum fill operations in cold shutdown conditions (Reference 1). As described in LAR-17-027, the proposed change is supported by safety analyses. The purpose of this audit is to review the calculations and analyses to verify the information and conclusions in LAR 17-04.

B. Regulatory Audit Bases

10 CFR 52.98(f) requires NRC approval for any modification to, addition to, or deletion from the terms and conditions of a Combined License (COL). This activity involves a departure from COL Appendix C information and corresponding plant-specific Tier 1 information; therefore, this activity requires an amendment to the COL. Accordingly, NRC approval is required prior to making the plant-specific changes in this license amendment request.

10 CFR 52, Appendix D, Section VIII.B.5.a allows an applicant or licensee who references this appendix to depart from Tier 2 information, without prior NRC approval, unless the proposed departure involves a change to or departure from Tier 1 information, Tier 2\* information, or the Technical Specifications, or requires a license amendment under paragraphs B.5.b or B.5.c of the section. The proposed change to UFSAR (Tier 2) design information involves changes to plant-specific Tier 1 (and corresponding changes to COL Appendix C) information, and thus requires NRC approval for the Tier 2 and involved Tier 1 departures.

10 CFR Part 52, Appendix D, Section VIII.A.4 and 10 CFR 52.63(b)(1) govern the issuance of exemptions from elements of the certified design information for AP1000 nuclear power plants. 10 CFR 52, Appendix D, VIII.A.4 requires a Tier 1 change shall not result in a significant decrease in the level of safety otherwise provided by the design.

This regulatory audit will include the following area:

- COL, Appendix C (and Plant –Specific Tier 1) Section 3.3
- UFSAR, Section 6.3.2.2.3
- COL, Appendix A, Technical Specifications, Specification 3.4.12

C. Regulatory Audit Scope or Methodology

The audit team will examine the inputs, methodology and results of the calculations supporting LAR-17-027.

#### D. Information and Other Material Necessary for Audit

NRC staff requests the following calculations be made available:

- The analysis demonstrating that adequacy of the revised containment floodup volume for a loss of coolant accident (i.e., supporting the change to COL, Appendix C (and Plant-Specific Tier 1) Section 3.3.
- The analysis supporting the following statement in LAR-17-027:  
*For TS 3.4.12 with the reactor subcritical for  $\geq 28$  hours, the proposed ADS stage 1, 2, and 3 valves (two required to be ADS stage 2 or 3) and three ADS stage 4 valves have a smaller total flow area than the currently required nine ADS flow paths. This is acceptable based on the evaluation for reactor subcritical for  $\geq 28$  hours, which results in less decay heat and therefore less venting flow area required.*

#### E. Team Assignments

The audit team includes:

Donald Palmrose, Senior Reactor Systems Engineer

Timothy Drzewiecki, Reactor Systems Engineer

Chandu Patel, Senior Project Manager

#### F. Logistics

Depending on the availability of the licensee's documentation, the audit is planned to be conducted between January 22, 2018, and February 28, 2018. The audit is intended to be conducted from the NRC Headquarters via the licensee's electronic reading room; however, the audit may be performed at a local office of the licensee, if the technical information is only retained in hard copy.

Location: NRC Headquarters  
Two White Flint North  
11545 Rockville Pike  
Rockville, MD 20852-2738

Alternatively,

Location: Westinghouse Electric Company, LLC  
Washington Operations  
11333 Woodglen Drive, Suite 203  
Rockville, MD 20852  
Telephone: 301-881-7040/7042

The NRC staff acknowledges the proprietary nature of the information requested. It will be handled appropriately throughout the audit. While the NRC staff will take notes that will be marked as proprietary and will not remove hard copies or copy electronic files.

#### G. Special Requests

N/A

#### H. Deliverables

In accordance with NRO Office Instruction, NRO-REG-108, the audit team will issue an audit summary within 90 days of audit completion.

#### I. References

1. "Vogtle Electric Generating Plant, Units 3 and 4 – Request for License Amendment and Exemption Regarding Technical Specifications for Reactor Coolant System Vacuum Fill and Inspections, Tests, Analyses, and Acceptance Criteria for Containment Floodup (LAR-17-027)," September 25, 2017 (ADAMS Accession Number ML17268A188).