

## Resource, SummerRAIsPEm

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**From:** Karas, Rebecca L  
**Sent:** Friday, June 24, 2016 10:35 AM  
**To:** GLEAVES, Bill C  
**Cc:** Burja, Alexandra L; BUDZYNSKI, JOHN T  
**Subject:** FW: Audit Report for LAR 14-12  
**Attachments:** Audit Report for LAR 14-12.docx

Bill,

Attached is the draft audit report from Alex. I concur on this, so DNRL can go ahead and finalize and issue it.

Rebecca Karas, Chief  
Reactor Systems, Nuclear Performance & Code Review  
Division of Safety Systems and Risk Assessment  
Office of New Reactors  
U.S. Nuclear Regulatory Commission  
Phone: 301-415-7533

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**From:** Burja, Alexandra L  
**Sent:** Friday, June 24, 2016 10:29 AM  
**To:** Karas, Rebecca L  
**Cc:** BUDZYNSKI, JOHN T  
**Subject:** Audit Report for LAR 14-12

Hi Becky,

Attached is the audit report I drafted for LAR 14-12. I included John on the email in case you don't have time to review the report before you leave.

Thanks,

Alex

**Hearing Identifier:** Summer\_COL\_eRAIs  
**Email Number:** 141

**Mail Envelope Properties** (a000c2573d654bb2ac5eb6ea76267079)

**Subject:** FW: Audit Report for LAR 14-12  
**Sent Date:** 6/24/2016 10:35:23 AM  
**Received Date:** 6/24/2016 10:35:26 AM  
**From:** Karas, Rebecca L

**Created By:** Rebecca.Karas@nrc.gov

**Recipients:**

"Burja, Alexandra L" <Alexandra.Burja@nrc.gov>  
Tracking Status: None  
"BUDZYNSKI, JOHN T" <John.Budzynski@nrc.gov>  
Tracking Status: None  
"GLEAVES, Bill C" <Bill.Gleaves@nrc.gov>  
Tracking Status: None

**Post Office:** HQPWMSMRS03.nrc.gov

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**Recipients Received:**

**Audit Report**  
**Core Makeup Tank Volume Inconsistency (LAR 14-12 & LAR 16-005)**

A. Background

By letter dated May 12, 2016 (Reference 1), South Carolina Electric & Gas Company (SCE&G), the licensee for Virgil C. Summer Nuclear Station (VCSNS) Units 2 and 3, requests United States Nuclear Regulatory Commission (NRC) approval of an amendment of the combined licenses (COL) for VCSNS Units 2 and 3, NPF COL Numbers NPF-93 and NPF-94, respectively. In addition, by letter dated May 18, 2016 (Reference 2), Southern Nuclear Operating Company (SNC), the licensee for Vogtle Electric Generating Plant (VEGP) Units 3 and 4, requests NRC approval of an identical amendment of the COL for VEGP Units 3 and 4, NPF COL Numbers NPF-91 and NPF-92, respectively. The proposed license amendment requests (LARs) 14-12 and 16-005 would revise the Updated Final Safety Analysis Report (UFSAR) text and tables and make changes to COL Appendix A, Technical Specifications, related to the minimum volume of the passive core cooling system core makeup tanks (CMTs). Specifically, the LARs request to change the CMT volume from 2,500 ft<sup>3</sup> in the aforementioned documents to 2,487 ft<sup>3</sup> to be consistent with the value in the inspections, tests, analyses, and acceptance criteria (ITAAC) in plant-specific DCD Tier 1. The LARs state that the AP1000 small break loss-of-coolant-accident (SBLOCA) safety analysis supports the revision, as it already assumes a CMT volume of 2,487 ft<sup>3</sup>.

To support its safety evaluation of LAR 14-12 and LAR 16-005, NRC staff from the Reactor Systems, Nuclear Performance & Code Review Branch (SRSB) in the Division of Safety Systems and Risk Assessment (DSRA) conducted an audit to review the AP1000 SBLOCA analysis to confirm the licensees' statement that a CMT volume of 2,487 ft<sup>3</sup> was used in the analysis.

B. Regulatory Audit Bases

This regulatory audit is based on the following:

- 10 CFR Part 50, Appendix A, General Design Criterion 35, "Emergency Core Cooling"
- 10 CFR 50.46, "Acceptance Criteria for Emergency Core Cooling Systems for Light-water Nuclear Power Reactors"

C. Logistics

The audit took place on Wednesday, June 22, 2016, at Westinghouse's Rockville, Maryland office listed below.

Location: Westinghouse Office  
11333 Woodglen Drive, Suite 202  
Rockville, MD 20852

#### D. Audit Team Members

The following NRC staff members participated in substantive discussions during the audit:

- Alexandra Burja, NRC Technical Reviewer
- Bill Gleaves, NRC Project Manager

#### E. Licensee Participants

The following licensee or licensee-supporting personnel participated in the audit:

- Nicholas Kellenberger, SCANA Corporation
- David McDevitt, Westinghouse Electric Company

#### F. Documents Audited

The staff audited calculation note APP-SSAR-GSC-130, Rev. 2, "Small-Break LOCA Steady-State Model," dated September 4, 2014.

#### G. Audit Results and Conclusions

The NRC staff confirmed during the audit that the CMT volume assumed in the AP1000 SBLOCA model is 2,487 ft<sup>3</sup>. The staff did not have any additional questions as a result of the audit.

#### H. References

1. Letter from April R. Rice, SCE&G to NRC, "Request for License Amendment: Core Makeup Tank Volume Inconsistency (LAR 14-12)," dated May 12, 2016 (ADAMS Accession No. ML16133A382).
2. Letter from Brian H. Whitley, SNC to NRC, "Request for License Amendment: Core Makeup Tank Volume Inconsistency (LAR 16-005)", dated May 18, 2016 (ADAMS Accession No. ML16139A796).