

## SummerRAIsPEm Resource

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**From:** Gleaves, Bill  
**Sent:** Tuesday, December 06, 2016 10:54 AM  
**To:** SummerRAIsPEm Resource  
**Subject:** FW: Summer RAI LAR 16-05

Billy  
William (Billy) Gleaves  
Lead Project Manager for  
V.C. Summer Units 2 and 3  
Licensing Branch 4  
US NRC, Office of New Reactors

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**From:** Hearn, Peter  
**Sent:** Tuesday, November 08, 2016 11:20 AM  
**To:** nicholas.r.kellenberger@scana.com  
**Cc:** Gleaves, Bill; Hearn, Peter  
**Subject:** Summer RAI

Nicholas,

Below is the Summer RAI involving the Auxiliary Building Floor:

Pursuant to 10 CFR 52.98(c) and in accordance with 10 CFR 50.90, South Carolina Electric and Gas Company (SCE&G) in a letter dated July 5, 2016 requested a license amendment (LAR 16-05) to change thickness of one floor in the auxiliary building above the Component Cooling Water System (CCS) room located between Column Lines I to J-1 and Column Lines 2 to 4 at Elevation 153'-0". The proposed change will depart from plant-specific AP1000 Design Control Document (DCD) Tier 1 information with corresponding changes to the associated COL Appendix C information and Tier 2\* information in the Updated Final Safety Analysis Report (UFSAR).

The proposed change revises the thickness of the floor of the reinforced concrete composite slab (RCCS) from 0'-9" to 1'- 3". The licensee in Enclosure

1, Section 2.0 in paragraph 2 of the LAR 16-05, justifies the change in slab thickness by stating:

*The proposed changes to the design of the subject floor as described in the UFSAR are needed because of a discrepancy between the detailed design and licensing basis that was identified after design finalization was reached.*

The licensee further in the same paragraph indicates:

*The proposed change to increase the floor thickness at the location indicated above does not change the design requirements and evaluation methods for composite floors in the auxiliary building incorporated in UFSAR Subsection 3.8.4 including conformance with American Institute of Steel Construction (AISC) N690 and American Concrete Institute (ACI) 349.*

Consistent with SRP Section 3.8.4, the applicant has committed to use American Institute of Steel Construction (AISC) N690 and American Concrete Institute (ACI) 349 for the design and analysis of reinforced concrete composite elements of category I safety-related structures and components. The licensee indicates that the slab thickness changes is in conformance with ACI 349 and has no significant effect on margin of safety.

Since the RCCS thickness change leads to increased dead load (DL) by approximately 67%, the staff in order to complete its safety review and conclusions requests the following additional information:

Describe the *discrepancy between the detailed design and licensing basis that was identified after design finalization was reached*, as mentioned in the above paragraph, to justify why the 9" thick slab does not serve the desired function and causes to change the thickness to 15".

Explain the effect of the increase in load from the thickened slab on the margin of safety, and

Address how the increase in mass of the slab was accounted for in the dynamic and static analysis of the structure.

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