

SummerRAIsPEm Resource

From: McGovern, Denise
Sent: Tuesday, January 13, 2015 1:58 PM
To: SummerRAIsPEm Resource
Subject: REQUEST FOR ADDITIONAL INFORMATION: LAR 14-07 FOR THE VIRGIL C. SUMMER NUCLEAR STATION UNITS 2 AND 3: CA04 STRUCTURAL MODULE ITAAC DIMENSION CHANGE
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Subject: REQUEST FOR ADDITIONAL INFORMATION: LAR 14-07 FOR THE VIRGIL C. SUMMER NUCLEAR STATION UNITS 2 AND 3: CA04 STRUCTURAL MODULE ITAAC DIMENSION CHANGE

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January 13, 2015

Mr. Ronald A. Jones, Vice President
New Nuclear Operations
South Carolina Electric & Gas Company
14368 State Highway 213
Jenkinsville, SC 29065

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION: REQUEST FOR LICENSE
AMENDMENT (LAR 14-07) FOR THE VIRGIL C. SUMMER NUCLEAR STATION
UNITS 2 AND 3: CA04 STRUCTURAL MODULE ITAAC DIMENSION CHANGE

Dear Mr. Jones:

By letter dated September 25, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14268A388), South Carolina Electric & Gas Company (SCE&G) submitted a request for a license amendment (LAR) for the Virgil C. Summer Nuclear Station (VCSNS), Units 2 and 3. The proposed amendment would depart from VCSNS Units 2 and 3 plant-specific Design Control Document (DCD) Tier 1 material contained within the Updated Final Safety Analysis Report (UFSAR) to allow changes to adjust the concrete wall thickness tolerances of four Nuclear Island walls.

The NRC staff has identified that additional information is needed to continue portions of the review. The staff's request for additional information (RAI) is contained in the enclosure to this letter.

You are requested to respond, signed under oath or affirmation, by February 13, 2015. If changes are needed to the UFSAR, the staff requests that the RAI response include the proposed wording changes.

R.Jones

If you have any questions or comments concerning this matter, you may contact me at 301-415-0681 or denise.mcgovern@nrc.gov.

Sincerely,

/RA/

Denise L. McGovern, Senior Project Manager
Licensing Branch 4
Division of New Reactor Licensing
Office of New Reactors

Docket No(s): 52-027
52-028

eRAI Tracking No. 7749

Enclosure:
Request for Additional Information

cc: See next page

R.Jones

If you have any questions or comments concerning this matter, you may contact me at 301-415-0681 or denise.mcgovern@nrc.gov.

Sincerely,

/RA/

Denise L. McGovern, Senior Project Manager
Licensing Branch 4
Division of New Reactor Licensing
Office of New Reactors

Docket No(s): 52-027
52-028

eRAI Tracking No. 7749

Enclosure:
Request for Additional Information

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*Approval captured electronically in the electronic RAI system NRO-002

OFFICE	DE/SEB:BC	DNRL/LB4:PM
NAME	MShams*	DMcGovern*
DATE	12/17/14	1/12/15

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Request for Additional Information
Virgil C. Summer Nuclear Station, Units 2 and 3
South Carolina Electric and Gas Company
Docket No. 52-027 and 52-028
LAR 14-07

Review Section: 03.08.03 - Concrete and Steel Internal Structures of Steel or Concrete Containments

QUESTIONS:

26401

On page 5 of 13 of the License Amendment Request (LAR 14-07), Enclosure 1, "License Amendment Request: CA04 Structural Module ITAAC Dimensions Change," the second paragraph states, "As stated in UFSAR Subsection 3.8.3.6.1, structural module tolerances conform to the requirements of Section 4 of ACI 117, Sections 3.3 and 3.4 of AWS D1.1, and Section Q1.23 of AISC N690, and UFSAR Subsection 3.8.4.4.1 requires that the design and analysis procedures are in accordance with ACI 349." The staff interprets this statement to indicate that the proposed tolerance changes for the structural modules meet the requirements in ACI 117. The staff noticed a difference between the tolerances in ACI 117 and the tolerances proposed in the LAR. ACI 117, Section 4.5, "Deviation from Cross-Sectional Dimensions," stipulates that the thickness of elements, except slabs, where specified cross-sectional dimension is more than 36 inches (3 feet), the tolerances is plus 1 (+1) and minus $\frac{3}{4}$ ($-\frac{3}{4}$) of an inch. These values are different than those proposed in the LAR. The licensee is requested to modify the LAR, conveying the difference between the standard and the LAR proposed wall thickness tolerance or providing a technical justification that validates this statement.

26402

On page 7 of 13 of the License Amendment Request (LAR 14-07), Enclosure 1, "License Amendment Request: CA04 Structural Module ITAAC Dimensions Change," the first paragraph states, "The proposed installation tolerance of $\pm 1-1/4$ " between the CA04/CB65 wall is greater than the ± 1 " specified in ACI 349-01, Section 7.5.2.1. To address this deviation, the total wall width was evaluated for both the larger and smaller tolerances from the actual design wall width of 36 inches. The review found that the required reinforcement in each direction increased slightly, but that the amount of reinforcement used in the wall design was still adequate." The licensee's justification for the increase in tolerances and not meeting both standards ACI 117 and ACI 349 is not clear to the staff. The licensee is requested to provide quantitative values for establishing the safety margin in the modules that do not meet ACI 117 and ACI 349 wall thickness and reinforcement location tolerance requirements.