

George A. Lippard Vice President, Nuclear Operations 803.345.4810

> July 3, 2018 RC-18-0084

Document Control Desk U.S. Nuclear Regulatory Commission Washington, DC 20555

Dear Sir / Madam:

Subject: VIRGIL C. SUMMER NUCLEAR STATION (VCSNS), UNIT 1 DOCKET NO. 50-395 OPERATING LICENSE NO. NPF-12 RELIEF REQUEST RR-4-15, REQUEST FOR ALTERNATIVE TO IMPLEMENT CODE CASE N-513-4, "EVALUATION CRITERIA FOR TEMPORARY ACCEPTANCE OF FLAWS IN MODERATE ENERGY CLASS 2 OR 3 PIPING" RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

- References: 1. Letter from George A. Lippard to NRC Document Control Desk dated July 3, 2018. "RELIEF REQUEST RR-4-15, REQUEST FOR ALTERNATIVE TO IMPLEMENT CODE CASE N-513-4, "EVALUATION CRITERIA FOR TEMPORARY ACCEPTANCE OF FLAWS IN MODERATE ENERGY CLASS 2 OR 3 PIPING" ADAMS Accession No. ML18184A560
 - 2. Email from Shawn A. Williams to Sara Beth Dalick dated July 3, 2018. "Summer N-513-4 RAIs"

South Carolina Electric & Gas Company (SCE&G), acting for itself and as agent for South Carolina Public Service Authority, submitted a Relief Request for the use of an alternative to implement Code Case N-513-4," Evaluation Criteria for Temporary Acceptance of Flaws in Moderate Energy Class 2 or 3 Piping" (Reference 1). The NRC staff's review of the Relief Request determined additional information was required and a request for additional information (RAI) was issued per Reference 2.

Enclosure I of this letter contains SCE&G's response to these RAIs.

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If you have any questions or require additional information, please contact Beth Dalick at (803) 605-5428.

Very truly yours,

George A ppard

BAB/GAL/ts

Enclosure I: Response to Request for Additional Information

c: J.E. Addison W.K. Kissam J. B. Archie J. H. Hamilton G. J. Lindamood W. M. Cherry C. Haney S. A. Williams NRC Resident Inspector K.M. Sutton NSRC RTS (CR-18-02706) File (810.19-2) PRSF (RC-18-0084)

VIRGIL C. SUMMER NUCLEAR STATION (VCSNS) UNIT 1 DOCKET NO. 50-395 OPERATING LICENSE NO. NPF-12

ENCLOSURE 1

Response to Request For Additional Information For RR-4-15, REQUEST FOR ALTERNATIVE TO IMPLEMENTCODE CASE N-513-4, "EVALUATION CRITERIA FOR TEMPORARY ACCEPTANCE OF FLAWS IN MODERATE ENERGY CLASS 2 OR 3 PIPING"

During the NRC review, the staff identified three areas where insufficient information was provided in the Relief Request to conduct the detailed review of the Relief Request. These areas are as follows:

<u>RAI No.1</u>

In the licensee's flooding analysis it assumed a 50.3 gallons per minute leakage rate. Verify that this leakage rate is intended to be the maximum permitted as part of the proposed alternative.

SCE&G Response

This relief request assumes a maximum leakage at this location of 50.3 gpm. With 271.1 gpm of margin in the SW system, a 50.3 gpm leak is greater than a safety factor of 4. This relief request is not valid for leakage greater than 50.3 gpm.

RAI No. 2

Section 5.5 states "The IB412' cannot exceed greater than 874 gpm leakage from the Component Cooling system per design calculation DC03490-003 Rev 1. There is 271 gpm of margin for leakage in the SW system. Therefore, a 50.3 gpm leak would fall within the limits of the margin.

Describe how the 874 gpm leakage and the 271 gpm margin were determined.

SCE&G Response

The Component Cooling Water design basis leakage is 874.6 gpm. Service Water operates at a lower pressure; therefore, Component Cooling bounds Service Water. Using 50 psig to calculate for Service Water leakage, the leakage is 603.6 gpm. This results in a margin of 271.1 gpm leakage for the Service Water System. See answer to RAI #1 for maximum allowable leakage at this location.

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RAI No. 3

In Section 5.5 of the proposed alternative states :

"Under normal operating conditions, the Intermediate Building sump pumps have a 75 gpm capacity each. There are six redundant 100% capacity sump pumps (3 total sump pits) which can be used during normal plant operations. These pumps may not be available during a loss of offsite power since they are supplied by non-safety related power. The water from the spray will collect at the floor near the pipe and drain to a nearby floor drain which goes to the Intermediate Building sump pumps. Therefore, IB building sump pumps would have sufficient capacity to prevent building flooding from the postulated 50.3 gpm leak rate."

Describe how the Intermediate Building will be dewatered during a loss of offsite power and describe why the margin provided is acceptable.

SCE&G Response

Assuming a maximum allowable leakage of 50.3 gpm, the large room volume of the IB 412' that would have to flood, and the design of curbs and flow paths to the tendon access area, Operators will have ample time to align the IB sump pumps to diesel backed power in accordance with the existing operating procedures.