

## **NRR-DMPSPeM Resource**

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**From:** Williams, Shawn  
**Sent:** Wednesday, January 9, 2019 5:49 AM  
**To:** MOORE, MICHAEL S  
**Cc:** DALICK, SARA BETH  
**Subject:** Virgil C. Summer Nuclear Station, Unit No. 1 – Request for Additional Information RE: LAR-10-02395, TS 3.8.2, "D.C. Sources - Operating" (EPID No. L-2018-LLA-0259)  
**Attachments:** Summer LAR-10-02395 RAIs.docx

Dear Mr. Moore,

By letter dated September 27, 2018 (Agencywide Documents Access and Management System Accession No. ML18270A360) South Carolina Electric & Gas Company (SCE&G) requested changes to the Technical Specifications (TSs) for the Virgil C. Summer Nuclear Plant, Unit 1. The proposed amendment would correct a non-conservative TS 3/4.8.2, "D.C. Sources Operating" by revising the inter-cell resistance value listed in Surveillance Requirements 4.8.2.1.b.2 and 4.8.2.1.c.3.

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the submittal and determined that additional information is needed to complete its review as discussed in the attachment. Ms. Dalick of your staff requested, and the NRC agrees, that SCE&G will respond within 45 days from the date of this e-mail. Please note that the NRC staff's review is continuing and further requests for information may be developed.

If you have any questions, please contact me at 301-415-1009 or [Shawn.Williams@nrc.gov](mailto:Shawn.Williams@nrc.gov).

Sincerely,  
Shawn A. Williams, Senior Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No.: 50-395

Enclosure: Request for Additional Information

**Hearing Identifier:** NRR\_DMPS  
**Email Number:** 741

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**Subject:** Virgil C. Summer Nuclear Station, Unit No. 1 – Request for Additional Information  
**RE:** LAR-10-02395, TS 3.8.2, "D.C. Sources - Operating" (EPID No. L-2018-LLA-0259)  
**Sent Date:** 1/9/2019 5:49:00 AM  
**Received Date:** 1/9/2019 5:49:03 AM  
**From:** Williams, Shawn

**Created By:** Shawn.Williams@nrc.gov

**Recipients:**  
"DALICK, SARA BETH" <SARA.DALICK@scana.com>  
Tracking Status: None  
"MOORE, MICHAEL S" <MICHAEL.S.MOORE@scana.com>  
Tracking Status: None

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REQUEST FOR ADDITIONAL INFORMATION

LICENSE AMENDMENT REQUEST

TS 3.8.2, "D.C. SOURCES - OPERATING"

SOUTH CAROLINA ELECTRIC & GAS COMPANY

VIRGIL C. SUMMER NUCLEAR STATION, UNIT NO. 1

DOCKET NO. 50-395

Regulatory Requirement

10 CFR 50.36(c)(3), "Technical Specifications," include SRs [Surveillance Requirements], which are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met. The SR 4.8.2.1 in the licensee amendment request (LAR) is related to the requirements 10 CFR 50.36(c)(3).

**Request for Additional Information (RAI) No. 1**

In the LAR Enclosure, on Page 6, the licensee stated that the general approach to calculate a maximum allowable battery connection resistance for VCSNS Class 1E station batteries XBA-1A-ED (Train A) and XBA-18-ED (Train B) is to determine the minimum amount of available voltage margin from battery discharge (voltage drop) calculation DC08320-010, and then use some of that available voltage margin to accommodate battery connection resistance. A primary goal for this approach was to not impact the minimum allowable battery terminal voltage of 108-volt DC used to size the VCS Class 1E station batteries in calculation DC08320-005.

It is not clear to the NRC staff how the minimum amount of available voltage margin was calculated in the above mentioned calculation DC08320-010. Please provide a summary of the calculation DC08320-010, including the data used and assumptions made in the calculation.

**RAI No. 2**

In the LAR Enclosure, on Page 8, the licensee stated that it performed calculation DC08320-020 to determine combination of allowable individual connection type resistances (as provided in the Table 3-4 in the LAR) that would not exceed the maximum allowable measured connection resistance of 2890  $\mu\Omega$ .

Please provide a summary of calculation DC08320-020, including the data used and assumptions made in the calculation to determine the individual limiting inter-cell, jumper, and terminal plate resistances (after determining the maximum allowable total battery resistance).