

Thomas D. Gatlin  
Vice President, Nuclear Operations  
803.345.4342



September 10, 2015  
RC-15-0142

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555-0001

Attn: S. A. Williams

Dear Sir / Madam:

Subject: VIRGIL C. SUMMER NUCLEAR STATION (VCSNS) UNIT 1  
DOCKET NO. 50-395  
OPERATING LICENSE NO. NPF-12  
LICENSE AMENDMENT REQUEST – LAR-12-04269  
LICENSE BASIS CHANGES IN STEAM GENERATOR TUBE  
RUPTURE ANALYSIS RESPONSE TO REQUEST FOR ADDITIONAL  
INFORMATION

- References:
1. SCE&G Letter from Thomas D. Gatlin to NRC Document Control Desk, License Amendment Request – LAR-12-04269, "License Basis Changes in Steam Generator Tube Rupture Analysis," dated August 27, 2014 [ML14245A408]
  2. NRC Letter from Shawn A. Williams to Thomas D. Gatlin, "Virgil C. Summer Nuclear Station, Unit No. 1, Request for Additional Information Regarding License Basis Changes in Steam Generator Tube Rupture Analysis (TAC NO. MF4699)," dated April 13, 2015 [ML15076A118]
  3. SCE&G Letter from Thomas D. Gatlin to NRC Document Control Desk, License Amendment Request – LAR-12-04269, "License Basis Changes in Steam Generator Tube Rupture Analysis," dated May 12, 2015 [ML15135A238]

South Carolina Electric & Gas Company (SCE&G), acting for itself and as agent for South Carolina Public Service Authority pursuant to 10 CFR 50.90, submitted License Amendment Request (LAR) per Reference 1 concerning license basis changes in the steam generator tube rupture analysis. NRC review of this request determined that additional information was required and a request for additional information (RAI) was issued per Reference 2. This letter contains the responses to RAIs No. 1 and No. 3 as committed to in Reference 3.

There are no regulatory commitments associated with this response.

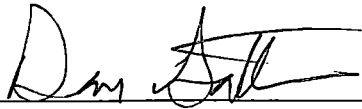
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Document Control Desk  
CR-12-04269  
RC-15-0142  
Page 2 of 2

If you have any questions regarding this submittal, please contact Mr. Bruce L. Thompson at (803) 931-5042.

I certify under penalty of perjury that the foregoing is correct and true.

9/10/2015  
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Executed on

  
\_\_\_\_\_  
Thomas D. Gatlin

TS/TDG/wm

Attachment: VCSNS Response to Request for Additional Information

Enclosure: 2 Compact Disks with Three-Year Meteorological Data in ARCON Format

c: K. B. Marsh  
S. A. Byrne  
J. B. Archie  
N. S. Carns  
J. H. Hamilton  
J. W. Williams  
W. M. Cherry  
V. M. McCree  
S. A. Williams  
NRC Resident Inspector  
S. E. Jenkins  
Paulette Ledbetter  
K. M. Sutton  
NSRC  
RTS (CR-12-04269)  
Files (813.20)  
PRSF (RC-15-0142)

Document Control Desk  
Attachment  
CR-12-04269  
RC-15-0142  
Page 1 of 3

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

**ATTACHMENT**

**VCSNS RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION**

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The U.S. Nuclear Regulatory Commission (NRC) staff reviewed the Virgil C. Summer Nuclear Station License Amendment Request (LAR), dated August 27, 2014 (Agencywide Documents Access and Management Systems (ADAMS) Accession No. ML14245A408) and supplements dated October 31, 2014, and February 12, 2015 (ADAMS Accession Nos. ML14308A075 and ML15055A143, respectively). The NRC staff has determined that the following requests for additional information (RAI) are required to complete the review.

**RAI No. 1**

In the NRC staff's Safety Evaluation dated October 4, 2010 (ADAMS Accession No. ML102160020), approving the Alternative Source Term (AST), Section 3.1.1 it states: "However, because of the apparent uncertainties discussed above, the NRC staff notes that these data may not be considered acceptable for use in other dose assessments of other meteorological applications without further NRC review and approval."

Therefore, please provide the most recent 3 years, with 90% recovery rate (per RG 1.230), of current meteorological data so that the staff can perform an assessment of the proposed  $\chi/Q$ s.

**SCE&G Response**

Three-Year meteorological data (01/01/2012 - 12/31/2014) have been developed as requested and are included in the attached compact disk in ARCON format for convenience.

**RAI No. 3**

Page 35 of the August 27, 2014, submittal, states that the atmospheric dispersion factors are presented in Table 11. A review of Table 11 shows that the values used are the same as those contained in the following application:

Letter from SCE&G to NRC, "License Amendment and Related Technical Specification Changes to Implement Full-Scope Alternative Source Term in Accordance with 10 CFR 50.67," February 17, 2009. (ADAMS Accession No. ML090720887)

In the NRC staff's approval of this application it states, "Therefore, the  $\chi/Q$  values should not be considered acceptable for use in other dose assessments or other meteorological applications without further NRC review and approval."

Given that the staff previously stated that these values should not be considered acceptable, please provide justification for using these values and demonstrate that these values are still appropriate with a more recent data set that does not have the uncertainties that were inherent in the previously provided data set.

**SCE&G Response**

The updated meteorological data was used to derive atmospheric dispersion ( $\chi/Q$ ) values at the Exclusion Area Boundary (EAB) and Low Population Zone (LPZ) at certain time intervals using the PAVAN code. The values are shown below and are compared to those used as input to the August 27, 2014 submittal [ML14245A408].

Time Period	$\chi/Q$ (sec/m <sup>3</sup> )	
	Current	Updated
	EAB	EAB
0 – 2 hrs	1.24E-4	1.25E-4
	LPZ	LPZ
0 – 8 hrs	2.42E-5	2.91E-5
8 – 24 hrs	1.68E-5	2.03E-5
1 – 4 days	7.55E-6	9.30E-6
4 – 30 days	2.40E-6	3.03E-6