



August 6, 2009  
NND-09-0211

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

ATTN: Document Control Desk

Subject: Virgil C. Summer Nuclear Station (VCSNS) Units 2 and 3 Combined License Application (COLA) - Docket Numbers 52-027 and 52-028 Response to NRC Request for Additional Information (RAI) Letter No. 057.

Reference: Letter from Tanya Simms (NRC) to Alfred M. Paglia (SCE&G), Request for Additional Information Letter No. 057 Related to SRP Section 9.2.4 for the Virgil C. Summer Nuclear Station Units 2 and 3 Combined License Application, dated July 9, 2009.

The enclosure to this letter provides the South Carolina Electric & Gas Company (SCE&G) response to the RAI items included in the above referenced letter. The enclosure also identifies any associated changes that will be incorporated in a future revision of the VCSNS Units 2 and 3 COLA.

Should you have any questions, please contact Mr. Al Paglia by telephone at (803) 345-4191, or by email at [apaglia@scana.com](mailto:apaglia@scana.com).

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

Executed on this 6<sup>th</sup> day of August, 2009.

Sincerely,

Ronald B. Clary  
General Manager  
New Nuclear Deployment

TWS/RBC/jg

Enclosure

c:

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**NRC RAI Letter No. 057 Dated July 9, 2009**

**SRP Section: 9.2.4 – Potable and Sanitary Water Systems**

QUESTION from Balance of Plant Branch 1 (SBPA)

**NRC RAI Number: 09.02.04-2**

The applicant provided a response to RAI 9.2.4-1 indicating that the only association the potable water system has with the ancillary raw water system is the off-site watertreatment facility and further stated that the possibility for the potable water system to become contaminated does not exist. The staff finds this acceptable and General Design Criteria (GDC) 60 is satisfied with respect to preventing contamination of the disinfected water by radioactive water. Section 9.2.5.3 of FSAR, Revision 0, defined the source for both filtered and disinfected water to be supplied from the water treatment facility for potable water. However, the proposed change in RAI 9.2.4-1 response defines the source of disinfected water and does not clearly address the source of the site-specific filtered water. Therefore, the staff can not confirm whether GDC 60 is met with regards to the potential for the source of filtered water to be potentially interconnected with any system using water for purposes other than domestic water service including any potentially radioactive system. Define the site-specific source of filtered water.

**VCSNS RESPONSE:**

As noted in the SCE&G response to NRC RAI 9.2.4-1, the Raw Water System (RWS) and the Potable Water System (PWS) both receive make-up water from an off-site water treatment facility. The location of the off-site water treatment facility is shown on FSAR Figure 1.1-202, "VCSNS Site Plan." The facility is also depicted on FSAR Figure 9.2-201, "Raw Water System Flow Diagram." The facility uses Monticello Reservoir to produce filtered water which is disinfected to produce a make-up source of drinking water to PWS, similar to that of a municipal drinking water facility. Filtered water is also supplied from the facility for make-up water to RWS to support loads described in Section 9.2.11 of the FSAR.

As indicated in the letter from Ronald B. Clary (SCE&G) to the Document Control Desk, Response to NRC Request for Additional Information (RAI) Letter No. 027, dated March 4, 2009, the Raw Water System (RWS) does not have the potential to be a flow path for radioactive fluids. Because RWS does not have the potential to be a flow path for radioactive fluids, its filtered water make-up source from the off-site water treatment facility does not have the potential to be contaminated. Since the only association the make-up water to RWS has with the make-up water supply to PWS is the off-site water treatment facility, the possibility for PWS to become contaminated does not exist.

Section 9.2.5.3 of the FSAR will be revised as described below to better address the interaction of the PWS with the off-site water treatment facility, state the potential for the PWS to become contaminated does not exist, and define the site specific source of filtered water.

This response is PLANT SPECIFIC.

#### **ASSOCIATED VCSNS COLA REVISIONS:**

COLA Part 2, FSAR Subsection 9.2.5.3 will be revised in a future update as indicated below.

#### 9.2.5.3 System Operation

~~Modify the first paragraph of DCD Subsection 9.2.5.3 as follows:~~

~~Filtered and disinfected water is supplied from the water treatment facility for the potable water distribution system.~~

~~Modify the fourth paragraph of DCD Subsection 9.2.5.3 as follows:~~

~~No interconnections exist between the potable water system (including its supply from the water treatment facility) and any system using water for purposes other than domestic water service including any potentially radioactive system.~~

Add the following after the first paragraph of DCD Subsection 9.2.5.3 as follows:

The site specific water source described above is considered to be the off-site water treatment facility. Filtered water described above is generated and disinfected at the off-site water treatment facility to provide a make-up source of drinking water to the Potable Water System (PWS). The location of the off-site water treatment facility is shown on FSAR Figure 1.1-202, "VCSNS Site Plan." This facility also provides a make-up source of filtered water to the Raw Water System (RWS) to support loads described in Section 9.2.11 of the FSAR. The facility is depicted on FSAR Figure 9.2-201, "Raw Water System Flow Diagram."

Add the following after the second paragraph of DCD Subsection 9.2.5.3 as follows:

The onsite water supply system described above is considered to be the off-site water treatment facility.

Add the following after the fourth paragraph of DCD Subsection 9.2.5.3 as follows:

The possibility for PWS to become contaminated radioactively does not exist. The Raw Water System (RWS) does not have the potential to be a flowpath for radioactive fluids. Because RWS does not have the potential to be a flowpath for radioactive fluids, its filtered water make-up source from the off-site water treatment facility does not have the potential to be contaminated radioactively. Since the only association the make-up water to RWS has with the make-up water supply to PWS is the off-site water treatment facility, the possibility for PWS to become contaminated radioactively does not exist.

**ASSOCIATED ATTACHMENTS:**

None