

July 7, 2010

Mr. Stephen A. Byrne
Senior Vice President
and Chief Nuclear Officer
South Carolina Electric & Gas Company
Columbia, South Carolina 29218

SUBJECT: VIRGIL C. SUMMER NUCLEAR STATION UNITS 2 AND 3 ADVANCED FINAL
SAFETY EVALUATION REPORT WITH NO OPEN ITEMS FOR CHAPTER 4,
"REACTOR"

Dear Mr. Byrne:

By letter dated March 27, 2008, South Carolina Electric & Gas (SCE&G) submitted its application to the U.S. Nuclear Regulatory Commission (NRC) requesting combined licenses (COLs) for two AP1000 advanced passive pressurized water reactors in accordance with the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants." The NRC formally docketed the application on July 31, 2008. These reactors are identified as Virgil C. Summer Nuclear Station (VCSNS) Units 2 and 3 and would be located in Fairfield County, South Carolina. The docket numbers established for VCSNS Units 2 and 3 are 52-027 and 52-028, respectively. Subsequent to the original VCSNS COL application, SCE&G updated and revised the application by letters dated July 30, 2009, and January 28, 2010.

Based on its review of SCE&G's application, the staff prepared the enclosed Advanced Final Safety Evaluation Report (AFSER) with no open items for Chapter 4, "Reactor." Unless otherwise stated in the AFSER with no open items, the staff's review was based on revisions and updates made to the VCSNS COL application through January 28, 2010. Issuance of this AFSER is an important milestone in the staff's review to determine whether SCE&G's application meets the Commission's regulations.

S. Byrne

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The staff concludes that the enclosed AFSER with no open items does not contain any information for which exemption from public disclosure has been sought or approved. However, the NRC will withhold the enclosed AFSER from public disclosure for ten calendar days from the date of this letter to allow SCE&G the opportunity to verify the staff's conclusion that the AFSER contains no such exempt information. If within that time, you do not request that all or portions of the AFSER be withheld from public disclosure in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding," the enclosure will be made available for public inspection through the NRC's Public Document Room and the Publicly Available Records component of the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the Public Electronic Reading Room section of the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Should you have any questions, please contact Ms. Sujata Goetz, the project manager for the VCSNS COL application at (301) 415-8004, sujata.goetz@nrc.gov or Mr. Joseph Sebrosky, the lead project manager for the VCSNS COL application at (301) 415-1132, joseph.sebrosky@nrc.gov.

Sincerely,

/RA/

Jeffrey Cruz, Branch Chief
AP1000 Projects Branch (NWE 1)
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-027 and 52-028

Enclosure:
Safety Evaluation Report, Chapter 4

cc w/ encl: see next page

The staff concludes that the enclosed AFSER with no open items does not contain any information for which exemption from public disclosure has been sought or approved. However, the NRC will withhold the enclosed AFSER from public disclosure for ten calendar days from the date of this letter to allow SCE&G the opportunity to verify the staff's conclusion that the AFSER contains no such exempt information. If within that time, you do not request that all or portions of the AFSER be withheld from public disclosure in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding," the enclosure will be made available for public inspection through the NRC's Public Document Room and the Publicly Available Records component of the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the Public Electronic Reading Room section of the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

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 AP1000 Projects Branch (NWE 1)
 Division of New Reactor Licensing
 Office of New Reactors

Docket Nos. 52-027 and 52-028

Enclosure:
 Safety Evaluation Report, Chapter 4

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NRO-002

OFFICE	LA:DNRL/NWE1:	PM:DNRL/NWE1	OGC	BC:DNRL/NWE1
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(Revised 05/10/2010)

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