

September 14, 2010

MEMORANDUM TO: Edwin M. Hackett, Executive Director
Advisory Committee on Reactor Safeguards

FROM: David B. Matthews, Director */RA/*
Division of New Reactor Licensing
Office of New Reactors

SUBJECT: VIRGIL C. SUMMER NUCLEAR STATION UNITS 2 AND 3
ADVANCED FINAL SAFETY EVALUATION WITH NO OPEN ITEMS
FOR CHAPTER 7, "INSTRUMENTATION AND CONTROLS"

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*, 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 (AFSE) with no open items for Chapter 7, "Instrumentation and Controls." Unless otherwise stated in the AFSE, the staff's review was based on revisions and updates made to the VCSNS COL application through January 28, 2010. Issuance of this AFSE is an important milestone in the staff's review to determine whether SCE&G's application meets the Commission's regulations.

The staff has reviewed the Memorandum to the Executive Director of Operations dated February 17, 2010, and reviewed our submitted information against the categories that the Advisory Committee on Reactor Safeguards (ACRS) requested to be used to highlight information for review by the Committee. Our assessment of this chapter is that there are no items that meet the categories for discussion with the Committee. In addition, for the following reasons the staff proposes not to present the Chapter 7 AFSE to the subcommittee:

- The VCSNS COL final safety analysis report (FSAR) Chapter 7 consists mainly of information incorporated by reference from the AP1000 design control document. There is some additional information outside of the AP1000 DCD that is evaluated by the staff; however, this information is limited to a setpoint calculation program (covered in Chapter 16 AFSE), and information associated with the post accident monitoring variables.

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- There are no open or confirmatory items related to the standard content material included in the safety evaluation (SE) with open items issued to Bellefonte Units 3 and 4. Bellefonte Units 3 and 4 were the AP1000 reference combined license applications (COLAs) at the time of issuance of the SE with open items.

The staff concludes that the AFSE does not contain any information for which exemption from public disclosure has been sought or approved. However, the NRC will withhold the AFSE from public disclosure for ten calendar days to allow SCE&G the opportunity to verify the staff's conclusion that the AFSE contains no such exempt information. Therefore, the staff requests that the ACRS likewise withhold the AFSE from public disclosure until it has been released publicly in the Agencywide Documents Access and Management System (ADAMS). The ADAMS accession number for the AFSE with no open items is ML101370712. The staff will inform the ACRS immediately if SCE&G requests that any of the information in the document be withheld from public disclosure.

Docket Nos. 52-027 and 52-028

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Docket Nos. 52-027 and 52-028

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