



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

October 19, 2015

Mr. Thomas D. Gatlin, Vice President  
Nuclear Operations  
South Carolina Electric and Gas Company  
Virgil C. Summer Nuclear Station  
Post Office Box 88, Mail Code 800  
Jenkinsville, SC 29065

SUBJECT: VIRGIL C. SUMMER NUCLEAR STATION, UNIT 1 – STAFF REVIEW OF  
INTERIM EVALUATION ASSOCIATED WITH REEVALUATED SEISMIC  
HAZARD IMPLEMENTING NEAR-TERM TASK FORCE RECOMMENDATION  
2.1 (TAC NO. MF5269)

Dear Mr. Gatlin:

By letter dated March 12, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12053A340), the U.S. Nuclear Regulatory Commission (NRC) issued a request for information pursuant to Title 10 of the *Code of Federal Regulations* Part 50, Section 50.54(f) (hereafter referred to as the 50.54(f) letter). The request was issued as part of implementing lessons-learned from the accident at the Fukushima Dai-ichi nuclear power plant. Enclosure 1 to the 50.54(f) letter requested that licensees reevaluate seismic hazards at their sites using present-day methodologies and guidance. Enclosure 1, Item 6, of the 50.54(f) letter requested that licensees identify “interim evaluation and actions taken or planned to address the higher seismic hazard relative to the design basis as appropriate, prior to completion of the [seismic] risk evaluation.” In addition to the interim evaluation provided in the March 2014 Seismic Screening and Hazard report, the licensees for the Central and Eastern United States committed to providing the Expedited Seismic Evaluation Process (ESEP) report, an interim evaluation, by December 31, 2014.

By letter dated December 17, 2014<sup>1</sup>, South Carolina Electric and Gas Company (SCE&G, the licensee), provided its ESEP report in a response to Enclosure 1, Item (6) of the 50.54(f) letter, for the Virgil C. Summer Nuclear Station, Unit 1 (V.C. Summer). The NRC staff assessed the licensee’s implementation of the ESEP guidance through the completion of a reviewer checklist<sup>2</sup>. In support of NRC staff questions, SCE&G provided responses dated June 8, 2015, and August 13, 2015<sup>3</sup>, clarifying submittal information. Based on the staff review of the ESEP report and responses to the staff’s questions, the NRC staff concludes that the licensee’s implementation of the interim evaluation meets the intent of the guidance.

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<sup>1</sup> The December 17, 2014, letter can be found under ADAMS Accession No. ML14357A168.

<sup>2</sup> The V.C. Summer ESEP NRC review checklist can be found under ADAMS Accession No. ML15272A420.

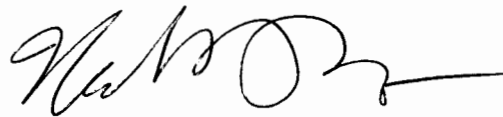
<sup>3</sup> The SCE&G responses to NRC staff questions can be found ADAMS Accession Nos. ML15159A805 and ML15229A089, respectively.

The staff concludes that, through the implementation of the ESEP guidance, the licensee identified and evaluated the seismic capacity of certain key installed Mitigating Strategies equipment that is used for core cooling and containment functions to cope with scenarios that involve a loss of all alternating current power and loss of access to the ultimate heat sink to withstand a seismic event two times the safe shutdown earthquake for V.C. Summer. The licensee has demonstrated additional assurance which supports continued plant safety while the longer-term seismic evaluation is completed to support regulatory decision making. The NRC staff concludes that the licensee responded appropriately to Enclosure 1, Item (6) of the 50.54(f) letter. Application of this review is limited to the interim evaluation as part of Recommendation 2.1 Seismic review

The NRC staff notes that Section 8.4 of the ESEP Report, as updated in the August 13, 2015, letter, contains a summary of regulatory commitments to complete ESEP activities. The licensee committed to complete ESEP related modifications before the end of the second refueling outage after December 31, 2014. The licensee also committed to sending a confirmatory letter to the NRC within 60 days of completing all ESEP modifications.

If you have any questions, please contact me at (301) 415-1115 or via e-mail at Nicholas DiFrancesco@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Nicholas DiFrancesco', with a long horizontal flourish extending to the right.

Nicholas DiFrancesco, Senior Project Manager  
Hazards Management Branch  
Japan Lessons-Learned Division  
Office of Nuclear Reactor Regulation

Docket No. 50-395

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The staff concludes that, through the implementation of the ESEP guidance, the licensee identified and evaluated the seismic capacity of certain key installed Mitigating Strategies equipment that is used for core cooling and containment functions to cope with scenarios that involve a loss of all alternating current power and loss of access to the ultimate heat sink to withstand a seismic event two times the safe shutdown earthquake for V.C. Summer. The licensee has demonstrated additional assurance which supports continued plant safety while the longer-term seismic evaluation is completed to support regulatory decision making. The NRC staff concludes that the licensee responded appropriately to Enclosure 1, Item (6) of the 50.54(f) letter. Application of this review is limited to the interim evaluation as part of Recommendation 2.1 Seismic review

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Sincerely,

*/RA/*

Nicholas DiFrancesco, Senior Project Manager  
 Hazards Management Branch  
 Japan Lessons-Learned Division  
 Office of Nuclear Reactor Regulation

Docket No. 50-395

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ADAMS Accession Number: **ML15280A216**

\* via concurrence e-mail

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