



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

December 21, 2012

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

SUBJECT: VIRGIL C. SUMMER NUCLEAR STATION, UNIT NO. 1, ISSUANCE OF
AMENDMENT (TAC NO. ME9515)

Dear Mr. Gatlin:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 193 to Renewed Facility Operating License No. NPF-12 for the Virgil C. Summer Nuclear Station, Unit No. 1, in response to your letter dated August 30, 2012. The amendment authorizes a deviation to the scope of the Cyber Security Plan Implementation Schedule for Milestone 6 and a revision to the Facility Operating License Condition 2.E to include the deviation.

A copy of the related Safety Evaluation is enclosed. Notice of Issuance will be included in the Commission's Biweekly *Federal Register* notice.

Sincerely,

A handwritten signature in cursive script that reads "Robert E. Martin".

Robert E. Martin, Senior Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-395

Enclosures:

1. Amendment No. 193 to NPF-12
2. Safety Evaluation

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

SOUTH CAROLINA ELECTRIC & GAS COMPANY

SOUTH CAROLINA PUBLIC SERVICE AUTHORITY

DOCKET NO. 50-395

VIRGIL C. SUMMER NUCLEAR STATION, UNIT NO. 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 193
Renewed License No. NPF-12

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by South Carolina Electric & Gas Company (the licensee), dated August 30, 2012, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Renewed Facility Operating License No. NPF-12 is hereby amended by adding the following paragraph to existing License Condition 2.E to read as follows:
 - E. SCE&G shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The Virgil C. Summer Nuclear Station CSP was approved by License Amendment No. 184 as supplemented by a change approved by License Amendment No. 193.
3. This license amendment is effective as of its date of issuance. The implementation of the cyber security plan (CSP), including key intermediate milestone dates and the full implementation date, shall be in accordance with the implementation schedule submitted by the licensee by letters dated March 28, 2011 and August 30, 2012, and approved by the NRC staff with Amendments 184 and 193. All subsequent changes to the NRC-approved CSP implementation schedule will require prior NRC approval pursuant to 10 CFR 50.90.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert J. Pascarelli, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to Renewed Facility
Operating License No. NPF-12

Date of Issuance: December 21, 2012

ATTACHMENT TO LICENSE AMENDMENT NO. 193
TO RENEWED FACILITY OPERATING LICENSE NO. NPF-12
DOCKET NO. 50-395

Replace the following page of the License with the enclosed page as indicated. The revised page is identified by amendment number and contains a marginal line indicating the areas of change.

Remove Page

License

License No. NPF-12, page 3

License No. NPF-12, page 11a

Insert Page

License

License No. NPF-12, page 3

License No. NPF-12, page 11a

- (3) SCE&G, pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as amended through Amendment No. 33;
- (4) SCE&G, pursuant to the Act and 10 CFR Parts 30, 40 and 70 to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed neutron sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (5) SCE&G, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (6) SCE&G, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This renewed license shall be deemed to contain, and is subject to, the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

SCE&G is authorized to operate the facility at reactor core power levels not in excess of 2900 megawatts thermal in accordance with the conditions specified herein and in Attachment 1 to this renewed license. The preoccupation tests, startup tests and other items identified in Attachment 1 to this renewed license shall be completed as specified. Attachment 1 is hereby incorporated into this renewed license.

(2) Technical Specifications and Environmental Protection Plan

The technical specifications contained in Appendix A, as revised through Amendment No. 193 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the renewed license. South Carolina Electric & Gas Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

- D. An exemption to the requirements of Paragraph III.B.4 of Appendix G to 10 CFR Part 50 is described in Section 5.3.1 of Supplement No. 1 to the Office of Nuclear Reactor Regulation's Safety Evaluation Report. A limited exemption to the requirements of Section IV.F.1(b) of Appendix E to 10 CFR Part 50 is described in a letter from B.J. Youngblood, NRC to O.W. Dixon, Jr., dated November 2, 1982. These exemptions are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest. The facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.
- E. SCE&G shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "Virgil C. Summer Nuclear Station Security Plan," as updated through May 15, 2006. This document includes the Security Training and Qualification Plan as Appendix B and the Safeguards Contingency Plan as Appendix C.

SCE&G shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The SCE&G CSP was approved by License Amendment No. 193.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 193 TO

RENEWED FACILITY OPERATING LICENSE NO. NPF-12

SOUTH CAROLINA ELECTRIC & GAS COMPANY

SOUTH CAROLINA PUBLIC SERVICE AUTHORITY

VIRGIL C. SUMMER NUCLEAR STATION, UNIT 1

DOCKET NO. 50-395

1.0 INTRODUCTION

By letter dated August 30, 2012, (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML12248A270), South Carolina Electric & Gas Company (SCE&G, the licensee), submitted a license amendment request (LAR) for the Virgil C. Summer Nuclear Station (VCSNS), Unit No.1.

The proposed change would revise the scope of Cyber Security Plan (CSP) Implementation Schedule Milestone 6 and the existing license condition in the renewed facility-operating license. Milestone 6 of the CSP implementation schedule concerns the identification, documentation, and implementation of cyber security controls (technical, operational, and management) for critical digital assets (CDAs) related to target set equipment. SCE&G is requesting to modify the scope of Milestone 6 to apply to the technical cyber security controls only. The operational and management controls, as described in NEI 08-09, Revision 6, would be implemented concurrent with the full implementation of the CSP (Milestone 8). Thus, all CSP activities would be fully implemented by the completion date, identified in Milestone 8 of the licensee's CSP implementation schedule. Portions of the letter dated August 30, 2012, contain sensitive unclassified non-safeguards information and, accordingly, those portions are withheld from public disclosure.

2.0 REGULATORY EVALUATION

The Nuclear Regulatory Commission (NRC staff) reviewed and approved the licensee's existing CSP implementation schedule by License Amendment No. 184 dated August 24, 2011 (ADAMS Accession No. ML11201A312), as corrected in NRC letter to SCE&G dated July 12, 2012 (ADAMS Accession No. ML12195A027) concurrent with the incorporation of the CSP into the facility current licensing basis. The NRC staff considered the following regulatory requirements and guidance in its review of the current license amendment request to modify the existing CSP implementation schedule:

Title 10 of the *Code of Federal Regulations* (10 CFR), Section 73.54 states: "Each [CSP] submittal must include a proposed implementation schedule. Implementation of the licensee's cyber security program must be consistent with the approved schedule."

The licensee's facility operating license(s) includes a license condition that requires the licensee to fully implement and maintain in effect all provisions of the Commission-approved CSP.

Amendment No. 184, dated August 24, 2011, which approved the licensee's CSP and implementation schedule, included the following statement: "The implementation of the cyber security plan (CSP), including key intermediate milestone dates and the full implementation date, shall be in accordance with the implementation schedule submitted by the licensee by letter dated March 28, 2011, and approved by the NRC staff with this license amendment. All subsequent changes to the NRC-approved CSP implementation schedule will require prior NRC approval pursuant to 10 CFR 50.90."

In a letter to the Nuclear Energy Institute (NEI) dated March 1, 2011 (ADAMS Accession No. ML110070348), the NRC staff acknowledged that the cyber security implementation schedule template was "written generically and licensees that use the template to develop their proposed implementation schedules may need to make changes to ensure the submitted schedule accurately accounts for site-specific activities."

3.0 TECHNICAL EVALUATION

Amendment No. 184 to Renewed Facility Operating License No. NPF-12 for VCSNS was issued on August 24, 2011. The NRC staff also approved the licensee's CSP implementation schedule, as discussed in the safety evaluation issued with the amendment. The implementation schedule had been submitted by the licensee based on a template prepared by the Nuclear Energy Institute (NEI), which the NRC staff found acceptable for licensees to use to develop their CSP implementation schedules (ADAMS Accession No. ML110600218). The licensee's proposed implementation schedule for the Cyber Security Program identified completion dates and bases for the following eight milestones: 1) Establish the Cyber Security Assessment Team (CSAT); 2) Identify Critical Systems (CSs) and Critical Digital Assets (CDAs); 3) Install a deterministic one-way device between lower level devices and higher level devices; 4) Implement the security control "Access Control For Portable And Mobile Devices"; 5) Implement observation and identification of obvious cyber-related tampering to existing insider mitigation rounds by incorporating the appropriate elements; 6) Identify, document, and implement cyber security controls as per "Mitigation of Vulnerabilities and Application of Cyber Security Controls" for CDAs that could adversely impact the design function of physical security target set equipment; 7) Commence ongoing monitoring and assessment activities for those target set CDAs whose security controls have been implemented; and 8) Fully implement the CSP.

3.1 Licensee's Proposed Change

Currently, Milestone 6 of VCSNS's CSP requires SCE&G to identify, document, and implement cyber security controls for CDAs that could adversely impact the design function of physical security target set equipment by December 31, 2012. These cyber security controls consist of technical, operational and management security controls. In its August 30, 2012, application, SCE&G proposed to modify Milestone 6 to change the scope of the cyber security controls due to be implemented on December 31, 2012, to include only the NEI 08-09, Revision 6, Appendix D

technical security controls. SCE&G proposes to amend its CSP to provide that operational and management security controls, identified in Milestone 6, will be fully implemented by a later date, which is the completion date identified in Milestone 8 of the CSP implementation schedule. The licensee stated that implementing the technical cyber security controls for target set CDAs provides a high degree of protection against cyber-related attacks that could lead to radiological sabotage. The licensee further stated that many of its existing programs are primarily procedure-based programs and must be implemented in coordination with the comprehensive CSP. The licensee also stated that the existing programs currently in place at VCSNS (e.g., physical protection, maintenance, configuration management, and operating experience) provide sufficient operational and management cyber security protection during the interim period until the CSP is fully implemented.

3.2 NRC Staff's Evaluation

The intent of the cyber security implementation schedule was for licensees to demonstrate ongoing implementation of their cyber security program prior to full implementation, which is set for the date specified in Milestone 8. In addition to Milestone 6 and its associated activities, licensees will be completing six other milestones (Milestones 1 through 5 and Milestone 7) by December 31, 2012. Activities include establishing a Cyber Security Assessment Team, identifying critical systems and CDAs, installing deterministic one-way devices between defensive levels, implementing access control for portable and mobile devices, implementing methods to observe and identify obvious cyber-related tampering, and conducting ongoing monitoring and assessment activities for target set CDAs. In their aggregate, the interim milestones demonstrate ongoing implementation of the cyber security program at VCSNS. The NRC staff has reviewed the licensee's evaluation of the proposed change in its submittal dated August 30, 2012, and finds that by completing Milestones 1 through 5, Milestone 6 with implementation of technical controls to target set CDAs, and Milestone 7, VCSNS will have an acceptable level of cyber security protection until full program implementation is achieved. Technical cyber security controls include access controls, audit and accountability, CDA and communications protection, identification and authentication, and system hardening. These controls are executed by computer systems, as opposed to people, and consist of hardware and software controls that provide automated protection to a system or application. Implementation of technical cyber security controls promotes standardization, trust, interoperability, connectivity, automation, and increased efficiency. For these reasons, the NRC staff concludes that the licensee's approach is acceptable.

The NRC staff also recognizes that full implementation of operational and management cyber security controls in accordance with requirements of the VCSNS CSP will be achieved with full implementation of the VCSNS CSP by the date set in Milestone 8. That is, all required elements for the operational and management cyber security controls in accordance with the VCSNS CSP will be implemented in their entirety at the time of full implementation of the CSP.

The NRC staff does not regard the CSP milestone implementation dates as regulatory commitments that can be changed unilaterally by the licensee, particularly in light of the regulatory requirement at 10 CFR 73.54, that "[i]mplementation of the licensee's cyber security program must be consistent with the approved schedule." As the NRC staff explained in its letter to all operating reactor licensees dated May 9, 2011 (ADAMS Accession No. ML110980538), the implementation of the plan, including the key intermediate milestone dates and the full implementation date shall be in accordance with the implementation schedule submitted by the

licensee and approved by the NRC. All subsequent changes to the NRC-approved CSP implementation schedule, thus, will require prior NRC approval pursuant in 10 CFR 50.90.

3.3 Revision to License Condition

By letter dated August 30, 2012, the licensee proposed to modify Paragraph 2.E of Renewed Facility Operating License No. NPF-12 for VCSNS Unit 1, which provides a license condition to require the licensee to fully implement and maintain in effect all provisions of the NRC-approved CSP. The second paragraph of license condition 2.E is modified to read as follows:

SCE&G shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The Virgil C. Summer Nuclear Station CSP was approved by License Amendment No. 184 as supplemented by a change approved by License Amendment No. 193.

3.4 Summary

Based on its review of the licensee's submissions, the NRC staff concludes that the proposed changes to Milestone 6 of the licensee's CSP implementation schedule are acceptable. The NRC staff also concludes that, upon full implementation of the licensee's cyber security program, the requirements of the licensee's CSP and 10 CFR 73.54 will be met. Therefore, the NRC staff finds the proposed changes acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the South Carolina State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

This amendment relates solely to safeguards matters and does not involve any significant construction impacts. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(12). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: M. Coffin

Date: December 21, 2012

December 21, 2012

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

SUBJECT: VIRGIL C. SUMMER NUCLEAR STATION, UNIT NO. 1, ISSUANCE OF
AMENDMENT (TAC NO. ME9515)

Dear Mr. Gatlin:

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Sincerely,

/RA/

Robert E. Martin, Senior Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-395

Enclosures:

1. Amendment No. 193 to NPF-12
2. Safety Evaluation

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