

September 9, 2004

Mr. Stephen A. Byrne  
Senior Vice President, Nuclear Operations  
South Carolina Electric & Gas Company  
Virgil C. Summer Nuclear Station  
Post Office Box 88  
Jenkinsville, South Carolina 29065

SUBJECT: VIRGIL C. SUMMER NUCLEAR STATION, UNIT NO. 1 – REQUEST FOR  
NRC PRIOR APPROVAL OF SAFETY ANALYSIS REPORT REVISION TO  
CHAPTER 17 (TAC NO. MB7986)

Dear Mr. Byrne:

By letter to the U.S. Nuclear Regulatory Commission (NRC) dated February 19, 2003, the South Carolina Electric & Gas Company (SCE&G), requested a revision to Chapter 17 of the Virgil C. Summer Nuclear Station Final Safety Analysis Report (FSAR) pursuant to Title 10 of the *Code of Federal Regulations*, Section 50.54(a). SCE&G identified changes to Chapter 17 of the FSAR which constitute a reduction in commitments and, therefore, require NRC approval. The proposed revision requests removal of certain quality assurance review requirements from the in-line procedure review process and from the Release-to-Work process, as described in Chapter 17 of the FSAR. Review responsibilities are delegated to the “user groups” or “line organizations.”

In response to a June 19, 2003, NRC request for additional information, SCE&G provided the additional information in a letter dated March 24, 2004.

The NRC staff has reviewed the changes and concluded that each change is acceptable, as stated in the enclosed safety evaluation.

Sincerely,

**/RA/**

Karen R. Cotton, Project Manager, Section 1  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-395

Enclosure: Safety Evaluation

cc w/enclosure: See next page

September 9, 2004

Mr. Stephen A. Byrne  
Senior Vice President, Nuclear Operations  
South Carolina Electric & Gas Company  
Virgil C. Summer Nuclear Station  
Post Office Box 88  
Jenkinsville, South Carolina 29065

SUBJECT: VIRGIL C. SUMMER NUCLEAR STATION, UNIT NO. 1 – REQUEST FOR  
NRC PRIOR APPROVAL OF SAFETY ANALYSIS REPORT REVISION TO  
CHAPTER 17 (TAC NO. MB7986)

Dear Mr. Byrne:

By letter to the U.S. Nuclear Regulatory Commission (NRC) dated February 19, 2003, the South Carolina Electric & Gas Company (SCE&G), requested a revision to Chapter 17 of the Virgil C. Summer Nuclear Station Final Safety Analysis Report (FSAR) pursuant to Title 10 of the *Code of Federal Regulations*, Section 50.54(a). SCE&G identified changes to Chapter 17 of the FSAR which constitute a reduction in commitments and, therefore, require NRC approval. The proposed revision requests removal of certain quality assurance review requirements from the in-line procedure review process and from the Release-to-Work process, as described in Chapter 17 of the FSAR. Review responsibilities are delegated to the “user groups” or “line organizations.”

In response to a June 19, 2003, NRC request for additional information, SCE&G provided the additional information in a letter dated March 24, 2004.

The NRC staff has reviewed the changes and concluded that each change is acceptable, as stated in the enclosed safety evaluation.

Sincerely,

*/RA/*

Karen R. Cotton, Project Manager, Section 1  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-395

Enclosure: Safety Evaluation

cc w/enclosure: See next page

DISTRIBUTION:

PUBLIC	RidsNrrPMKCotton	RidsAcrsAcnwMailCenter
PDII-1 R/F	RidsNrrLABClayton	RidsRgn2MailCenter (KLandis)
RidsNrrDlpmLpdii-1 (MRoss-Lee)	RidsOgcRp	RidsNrrDlpmDpr

ADAMS Accession No.: ML042150080

NRR-106

OFFICE	DLPM/PDII-1/PM	DLPM/PDII-1/LA	OGC	DLPM/PDII-1/SC (A)
NAME	KCotton	BClayton	SLewis(NLO)	MRoss-Lee
DATE	9/7/04	8/23/04	9/7/04	9/8/04

OFFICIAL RECORD COPY

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

QUALITY ASSURANCE PROGRAM FOR OPERATION POLICY DOCUMENT

REVISION

SOUTH CAROLINA ELECTRIC & GAS

VIRGIL C. SUMMER NUCLEAR STATION

DOCKET NO. 50-395

1.0 INTRODUCTION

By letter to the U.S. Nuclear Regulatory Commission (NRC) dated February 19, 2003, the South Carolina Electric & Gas Company (SCE&G), requested a revision to Chapter 17 of the Virgil C. Summer Nuclear Station (VCSNS, the licensee) Final Safety Analysis Report (FSAR) pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.54(a). The licensee identified changes to Chapter 17 of the FSAR which constitute a reduction in commitments and, therefore, require NRC approval. The proposed revision requests removal of certain quality assurance (QA) review requirements from the in-line procedure review process and from the Release-to-Work process, as described in Chapter 17 of the FSAR. The licensee delegates review responsibilities to the "user groups," or "line organizations." In response to NRC's June 19, 2003, request for additional information, SCE&G provided the additional information in a letter dated March 24, 2004.

2.0 EVALUATION OF LICENSEE'S REQUEST FOR APPROVAL

2.1 SCE&G Request for Approval

2.1.1 Section 17.2.2.3, "Administrative Controls"

SCE&G requests NRC approval to delete the following requirements from Section 17.2.2.3, "Administrative Controls," of Chapter 17 of the VCSNS FSAR:

- a. "Plant procedures on Administration, Maintenance, Modification, Special Processes, and Test and Surveillance will be reviewed by Quality Systems prior to implementation as defined in the Operational QA Plan."
- b. "Temporary approval of procedures is made with documented QA cognizance when QA review is required, and an additional requirement that the change must be satisfactorily processed to QA by the next normal working day after the change is implemented."
- c. "Station Administrative Procedures are reviewed by QS [Quality Systems]."

ENCLOSURE

### 2.1.2 NRC Evaluation

In Attachment III to a letter to the NRC dated March 24, 2004 (Reference 3), VCSNS provided the following additional information.

- a. VCSNS's Standard Administrative Procedure (SAP)-139, "Procedure Development, Review, Approval, and Control," requires cross-discipline reviews of SAP changes and subsequent revisions. The cross-discipline reviews have been effective in identifying any significant problems. Independent reviews by QS have not identified any additional significant procedure issues and were eliminated.
- b. Line organizations provide the required review of temporary procedure changes as required by SAP-139. The approval processes for temporary changes and normal changes are basically the same. This rendered the QA review redundant.
- c. VCSNS states that historical review of the QS comments on the SAP reviews indicated that the line organizations over-relied on the independent review function of QA. According to SAP-139, the Plant Safety Review Committee (PSRC) reviews all initial issuances of SAPs and, based upon the SAP's potential impact on nuclear safety, will set the requirements for future revision reviews. Both, the cross-discipline and PSRC reviews have proven effective in identifying any significant problems with procedures. This eliminated the need for QS to review SAPs.

### 2.1.3 Conclusion

The proposed change reduces the quality assurance commitments in the approved Chapter 17 of the FSAR by deleting the requirement for QS involvement in the review of changes to procedures, their revisions, and SAPs. However, because PSRC, cross-discipline personnel, and line organizations review all initial procedures and changes to them, the QA program review becomes redundant. The effectiveness of the QA program is not diminished and the program will continue to satisfy 10 CFR Part 50, Appendix B, requirements. Therefore, the proposed changes are acceptable.

## 2.2 SCE&G Request for Approval

### 2.2.1 Section 17.2.2.7, "Maintenance and Engineering Change Activities"

In Section 17.2.2.7, "Maintenance and Engineering Change Activities," of Chapter 17, the last two sentences state, "SCE&G QS reviews design control procedures to assure the existence of appropriate controls. Audits are performed to assure conformance to the procedural requirements." SCE&G requests NRC approval to delete the first sentence mentioned above, and revise the second to read, "Audits are performed by SCE&G QS to assure the existence of appropriate controls and conformance to the procedural requirements."

### 2.2.2 NRC Evaluation

The licensee proposes to bring the design control procedure into compliance with the American National Standards Institute ANSI-N 18.7-1976 with these changes. The licensee's Design Engineering group maintains the Design Control process, where the procedures are reviewed

by the original initiator, a qualified reviewer, an engineering supervisor, and an engineering manager. The absence of QS participation does not diminish the effectiveness of the reviews because responsible user groups who are knowledgeable with the technical requirements review the procedure. The licensee's change requires SCE&G QS to focus on audits to identify any degradation in procedural adequacies caused by the absence of appropriate controls and conformance to the procedural requirements.

### 2.2.3 Conclusion

The proposed revision reduces the quality assurance commitments stated in the approved Chapter 17 of the FSAR. However, the effectiveness of the QA program will not be decreased because qualified technical personnel review the design control procedures and QS is required to perform audits to verify the existence of the attributes. The QA program will continue to satisfy 10 CFR Part 50, Appendix B, requirements and, therefore, the change is acceptable.

## 2.3 SCE&G Request for Approval

### 2.3.1 Section 17.2.5, "Instructions, Procedures and Drawings"

In Section 17.2.5, "Instructions, Procedures and Drawings," of Chapter 17, it states, "SCE&G QA and/or PQ [procurement quality] or SQ [supplier quality] will, as required by the purchase order/contract, review documents from vendors/contractors which affect quality to verify . . . ." SCE&G requests NRC approval to substitute, "The responsible user group" at the beginning of the sentence for "SCE&G QA" so that the revision of the above sentence will read, "The responsible user group and/or PQ or SQ will, as required by the purchase order/contract, review documents from vendors/contractors which affect quality to verify . . . ."

Also the last sentence of this section states, "The existence of documents prior to fabrication, and installation is assured by the review, concurrence, and issuance of the release to work by SCE&G QA, PQ, or SQ as appropriate per sections 17.2.2.7 and 17.2.7.2." SCE&G requests NRC approval to delete SCE&G QA from the review, concurrence, and issuance cycle, and revise the sentence to read, "The existence of documents prior to fabrication, and installation is assured by the review, concurrence, and issuance of the release to work by SCE&G PQ, or SQ as appropriate per sections 17.2.2.7 and 17.2.7.2."

### 2.3.2 NRC Evaluation

The line organization requesting the services of contractors/vendors has the responsibility to perform document reviews. In-line reviews of these documents and changes did not identify any significant findings. In the past, the line organization's monitoring and reviews were so effective that they precluded any significant findings during the QA in-line reviews of procurement documents. The deletion of SCE&G QA from the review cycle does not reduce the adequacy of the review, as previously demonstrated. PQ or SQ will continue, as required, to review, concur, and issue the release to work after verification of the existence of quality documents prior to fabrication, and installation.

### 2.3.3 Conclusion

The proposed change deletes "SCE&G QA" and substitutes "The responsible user group," to review vendor/contract documents but retains PQ, and SQ to perform the required document reviews. The change removes only SCE&G "QA" and retains PQ, or SQ to review, concur, and issue the release to work after verification that documents exist. The QA program will continue to satisfy 10 CFR Part 50, Appendix B, requirements and the effectiveness of scrutinizing the procurement documents has been demonstrated to be unchanged. Therefore, the changes are acceptable.

## 2.4 SCE&G Request for Approval

### 2.4.1 Section 17.2.7.2, "Work Releases"

In Section 17.2.7.2, "Work Releases," of Chapter 17, SCE&G requests NRC approval to revise the sentence which states, "The manufacturing, quality control, inspection, and test procedures identified are then submitted to the SCE&G QA, and/or PQ or SQ representative for review" to read, "The manufacturing, quality control, inspection, and test procedures identified are then submitted to the responsible SCE&G user group and/or PQ or SQ representative for review." VCSNS also requests NRC approval to delete the sentence, "This concurrence is noted by the issuance of written release to work to vendors and contractors."

### 2.4.2 NRC Evaluation

In the first change, VCSNS substitutes "responsible SCE&G user group" for "SCE&G QA" because "responsible SCE&G user group," not "SCE&G QA" has the responsibility for contractor/vendor negotiation, contract, and related activities. For the second change request, VCSNS states that the deletion of the sentence is necessary for consistency with other requested changes because a written release to work for the vendors and contractors will not be necessary when other requested changes receive NRC approval.

### 2.4.3 Conclusion

The proposed change substituting "responsible SCE&G user group" for "SCE&G QA" to review and denote its concurrence on the manufacturing, quality control, inspection, and test procedures, will not diminish the effectiveness of the QA program. The user groups and/or PQ or SQ will continue to conduct reviews. The revised QA program will continue to satisfy 10 CFR Part 50, Appendix B, requirements. Therefore, the changes are acceptable.

## 2.5 SCE&G Request for Approval

### 2.5.1 Section 17.2.9.2, "Site Controls"

In Section 17.2.9.2, "Site Controls," of Chapter 17 of the FSAR, SCE&G requests NRC approval for three changes. The first one is to revise the first sentence, "Special process procedures of contractors and SCE&G organizations at the Virgil C. Summer Nuclear Station are subject to review and concurrence by QS, PQ, or SQ in the same fashion and including the same controls as specified for vendors in Section 17.2.9.1," to read, "Special process procedures of contractors and SCE&G organizations at the Virgil C. Summer Nuclear Station

are reviewed and concurred with by the responsible user group.” The second change relates to the second sentence in the paragraph, “Use of special process procedures at Virgil C. Summer Nuclear Station may not begin until the special process procedures have received this concurrence,” to read, “Use of special process procedures at Virgil C. Summer Nuclear Station may not begin until the special process procedures have received the required reviews and concurrence as described in approved procedures. As an overview function, SCE&G QS performs audits/surveillances to assure that special processes are properly controlled and implemented.” The third change relates to the deletion of the last sentence, “During the performance of work at the Virgil C. Summer Nuclear Station, SCE&G QS performs surveillance to verify proper and complete implementation of the approved special process procedures.”

### 2.5.2 NRC Evaluation

This request changes the prerequisites for using special procedures by designating the line organization requesting the services of contractors/vendors as having responsibility for reviewing the procedures. In the second change, VCSNS clarifies the prerequisites for using special procedures. In the past, the line organization performed effective monitoring and reviews that resulted in precluding any significant findings by QA. In the last change, the surveillances that have been deleted in the last sentence have been reinstated in the second change.

### 2.5.3 Conclusion

The change improves the effectiveness of the QA program because it delegates the review responsibilities to the line organization, and clarifies the prerequisites for using special procedures. The change also shifts the primary responsibility to the user group and requires QS to perform audits/surveillances to assure that special processes are properly controlled and implemented. The QA program will continue to satisfy 10 CFR Part 50, Appendix B, requirements. Therefore, the changes are acceptable.

## 2.6 SCE&G Request for Approval

### 2.6.1 Section 17.2.10.2, “On-site Inspection”

In Section 17.2.10.2, “On-site Inspection,” of Chapter 17, SCE&G requests NRC approval to revise a sentence, “The inspection program and approved procedures developed for use at the Virgil C. Summer Nuclear Station are reviewed and concurred with by SCE&G QS to the criteria given in Section 17.2.10.1,” to read, “The inspection program and approved procedures developed for use at the Virgil C. Summer Nuclear Station are reviewed and concurred with by SCE&G QC to the criteria given in Section 17.2.10.1.”

### 2.6.2 NRC Evaluation

The licensee’s proposed change shifts the responsibility for review and concurrence from SCE&G QS to SCE&G QC. The change, rearranging responsibilities of the various organizations, are clarifications of commitments, and not reductions. There is no reduction in the effectiveness of the QA program.

### 2.6.3 Conclusion

The proposed change is a clarification to the QA commitments in the approved Chapter 17 of the FSAR. This change does not reduce the effectiveness of the 10 CFR Part 50, Appendix B, program. Therefore, this change is acceptable.

## 2.7 SCE&G Request for Approval

### 2.7.1 Section 17.2.12.2, "Site Control"

In Section 17.2.12.2, "Site Control," of Chapter 17, SCE&G requests NRC approval to revise the sentence, "SCE&G QA reviews the measuring and test equipment [M&TE] control program to assure the existence of these requirements, and performs audits and surveillance of the responsible groups to assure implementation." to read, "SCE&G QS performs audits and surveillances of the responsible groups to assure the existence of these requirements and to assure implementation."

### 2.7.2 NRC Evaluation

The existing program requires the originator, a qualified reviewer, a supervisor, a manager, and the PSRC to review the M&TE procedures. In Reference 3, SCE&G management believes that the user group's review of M&TE procedures will be effective and preclude any significant findings. However, if any degradation of procedural adequacy occurs, QS should detect the problems during surveillances and audits. SCE&G QS will perform audits and surveillances of the responsible groups to verify the implementation of the M&TE program. This change will not decrease the requirements of the 10 CFR Part 50, Appendix B.

### 2.7.3 Conclusion

The proposed changes delegate the review responsibilities to the user group, and clarify the responsibilities of the QS organization. These changes do not reduce the effectiveness of the existing QA program. The SCE&G QA program will continue to satisfy 10 CFR Part 50, Appendix B, requirements. Therefore, the changes are acceptable.

## 2.8 SCE&G Request for Approval

### 2.8.1 Section 17.2.13.2, "Site Controls"

In Section 17.2.13.2, "Site Controls," of Chapter 17, Amendment 00-01, SCE&G requests NRC approval to revise the last sentence, "SCE&G QA reviews these programs to assure incorporation of the required elements and performs audits and/or surveillance to assure the continued existence and implementation of these requirements." to read, "SCE&G QS performs audits and/or surveillances to assure the incorporation of the required elements and the implementation of the requirements."

### 2.8.2 NRC Evaluation

The change clarifies the responsibilities of SCE&G QS as an independent oversight group. QA is part of the QS organization. For programs and procedures related to the Control of Handling

and Storage, the change requires SCE&G QS to perform audits and/or surveillances to assure that they contain the required elements. Previously, instead of QS audits, SCE&G QA reviewed the programs to assure incorporation of the required elements and performed audits and/or surveillance to assure the continued existence of those elements and the implementation of these elements. The SCE&G QS audits will identify absence of the required elements in the Control of Handling and Storage procedures.

### 2.8.3 Conclusion

The proposed change clarifies the responsibilities of the QS by assigning it the responsibility to perform audits to verify the implementation of the Control of Handling, and Storage program. The change does not diminish the effectiveness of the SCE&G QA program, and it will continue to satisfy 10 CFR Part 50, Appendix B, requirements described in Chapter 17 of the FSAR. Therefore, the change is acceptable.

## 2.9 SCE&G Request for Approval

### 2.9.1 Section 17.2.14.2, "Site Controls"

In Section 17.2.14.2, "Site Controls," of Chapter 17, Amendment 00-01, SCE&G requests NRC approval for two changes. The first one relates to the deletion of the requirement, "SCE&G QA reviews these programs for inclusion of requirements for the use of status identifiers which control the use of items, systems, and components in the VCSNS prior to implementation." In the second one, SCE&G requests the NRC approval to revise the sentence, "SCE&G QA performs audits and surveillances of the Virgil C. Summer Nuclear Station to assure the continued existence of these requirements and their implementation." to read, "SCE&G QA performs audits and surveillances of the Virgil C. Summer Nuclear Station to assure the continued existence of status identifiers and control requirements and their implementation."

### 2.9.2 NRC Evaluation

Deletion of the requirement for QA to review the tagging programs clarifies the oversight process. Cross-discipline review of procedures verifies if the requirements to use status identifiers have been included in them. In Reference 3, the licensee states that over the years, the cross-discipline reviews proved effective in identifying any significant problems with the procedures. Historically, the independent reviews by QA have failed to identify any significant problems, and become a redundant task. The second change specifies the elements, such as, verification of status identifiers, control requirements, and their implementation that are to be verified during the SCE&G QA audits. As a result, instead of performing program and procedure reviews, SCE&G QA is required to perform audits to verify the existence of specific attributes in the program. There is no reduction in the effectiveness of the QA program because cross-discipline reviews of the Receiving Inspection program are in place. Specifying the attributes, such as, the existence of "Status" identifiers and controls, and the implementation (of the tagging system), to be audited will not reduce the effectiveness of the SCE&G audits.

### 2.9.3 Conclusion

The deletion of the responsibility for QA to review the program of the operating status tagging program does not decrease the adequacy of the QA program described in Chapter 17 of the FSAR because cross-discipline reviews are performed. The effectiveness of the program is being enhanced by SCE&G QA audits and surveillances to ensure that tags are affixed to items that have been inspected during receipt inspections to denote the acceptability status of the item. The QA program will continue to meet the requirements of 10 CFR Part 50, Appendix B. Therefore, the changes are acceptable.

References: 1. RC-03-0031 VCSNS to NRC, dated February 19, 2003  
2. NRC Request for Additional Information, dated June 19, 2003  
3. RC-04-0054 VCSNS to NRC, dated March 24, 2004

Principal Contributor: K. Naidu

Date: September 9, 2004

VIRGIL C. SUMMER NUCLEAR STATION

cc:

Mr. R. J. White, Nuclear Coordinator  
S.C. Public Service Authority  
c/o Virgil C. Summer Nuclear Station  
Post Office Box 88, Mail Code 802  
Jenkinsville, South Carolina 29065

Resident Inspector/Summer NPS  
c/o U.S. Nuclear Regulatory Commission  
576 Stairway Road  
Jenkinsville, South Carolina 29065

Chairman, Fairfield County Council  
Drawer 60  
Winnsboro, South Carolina 29180

Mr. Henry Porter, Assistant Director  
Division of Waste Management  
Bureau of Land & Waste Management  
Dept. of Health & Environmental Control  
2600 Bull Street  
Columbia, South Carolina 29201

Mr. Jeffrey B. Archie, General Manager  
Nuclear Plant Operations  
South Carolina Electric & Gas Company  
Virgil C. Summer Nuclear Station  
Post Office Box 88, Mail Code 300  
Jenkinsville, South Carolina 29065

Mr. Ronald B. Clary, Manager  
Nuclear Licensing  
South Carolina Electric & Gas Company  
Virgil C. Summer Nuclear Station  
Post Office Box 88, Mail Code 830  
Jenkinsville, South Carolina 29065

Ms. Kathryn M. Sutton, Esquire  
Winston & Strawn Law Firm  
1400 L Street, NW  
Washington, DC 20005-3502