

SAFETY EVALUATION BY THE OFFICE OF NEW REACTORS

RELATED TO AMENDMENT NO. 17

TO THE COMBINED LICENSE NO. NPF-93

AND LICENSE NO. NPF-94

SOUTH CAROLINA ELECTRIC AND GAS COMPANY

SOUTH CAROLINA PUBLIC SERVICE AUTHORITY

VIRGIL C. SUMMER NUCLEAR STATION UNITS 2 AND 3

DOCKET NOS. 52-027 AND 52-028

1.0 INTRODUCTION

By letter dated July 17, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13200A048, Reference 1), South Carolina Electric and Gas (SCE&G, the licensee) requested that the U.S. Nuclear Regulatory Commission (NRC/Commission) amend the combined licenses (COLs) for Virgil C. Summer Nuclear Station (VCSNS) Units 2 and 3, COL Numbers NPF-93 and NPF-94, respectively.

The proposed changes would depart from plant-specific Design Control Document (DCD) Tier 2* and associated Tier 2 material incorporated into the VCSNS Units 2 and 3 Updated Final Safety Analysis Report (UFSAR), to revise the following information related to fire area boundaries: (1) Annex Building and Turbine Building layout changes, (2) Turbine Building Stairwell S08 changes to support egress functions, and (3) an Annex Building Heating, Ventilation and Air Conditioning shaft UFSAR figure clarification.

In its letters dated July 8, 2014 (ADAMS Accession No. ML14189A273) and July 11, 2014 (ADAMS Accession No. ML14195A371), the licensee provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on October 1, 2013 (78 FR 60321).

2.0 REGULATORY EVALUATION

Appendix D, "Design Certification Rule for the AP1000 Design," of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," Section VIII.B.6 requires NRC approval for departures from Tier 2* information. Because the proposed amendment request involves changes to Tier 2* information NRC approval is required before making the Tier 2* changes addressed in this departure.

Section VIII.B.5.a. of Appendix D of 10 CFR Part 52 requires NRC approval for a departure from Tier 2 information that involves a change to or departure from Tier 2* information. Because the proposed amendment request includes changes to Tier 2 information which involve changes to Tier 2* information NRC approval is required before making the Tier 2 changes addressed in this departure.

The NRC staff considered the following regulatory requirements in reviewing the licensee's proposed UFSAR changes:

10 CFR 50.48, "Fire protection," requires a fire protection plan that satisfies 10 CFR 50, Appendix A, General Design Criterion (GDC) 3, "Fire protection." GDC 3 requires structures, systems, and components important to safety to be designed and located to minimize, consistent with other safety requirements, the probability and effect of fires and explosions.

10 CFR 50.150, "Aircraft impact assessment," requires applicants to perform a design-specific assessment of the effects on the facility of the impact of a large, commercial aircraft. Using realistic analyses, the applicant identifies and incorporates into the design those design features and functional capabilities to show that, with reduced use of operator actions: (i) the reactor core remains cooled, or the containment remains intact; and (ii) spent fuel cooling or spent fuel pool integrity is maintained.

10 CFR 73.55(a) requires that the licensee's security plans satisfy the requirements of 10 CFR 73.55.

10 CFR 73.55(b) requires in part, that:

- (1) The licensee shall establish and maintain a physical protection program, to include a security organization, which will have as its objective to provide high assurance that activities involving special nuclear material are not inimical to the common defense and security and do not constitute an unreasonable risk to the public health and safety.
- (2) The physical protection program must protect against the design basis threat of radiological sabotage as stated in §73.1.

3.0 TECHNICAL EVALUATION

3.1 Introduction

The NRC staff reviewed Reference 1 to determine the effects of the proposed changes in fire area boundaries on fire protection and aircraft impact analyses for VCSNS Units 2 and 3. The fire protection analysis and malevolent aircraft impact analysis are described in Reference 4 Appendices 9A and 19F, respectively. The staff evaluated (1) Annex Building and Turbine Building layout changes which included (a) Annex Building Computer Room wall change,

(b) Turbine Building Lube Oil Storage (LOS) Room changes, and (c) improving the Turbine Building's egress by adding new stairway S15 to the northwest corner of the Turbine Building (2) Turbine Building Stairwell S08 changes to support egress functions, and (3) an Annex Building Heating, Ventilation and Air Conditioning (HVAC) shaft Reference 4 figure clarification.

The NRC staff reviewed the proposed changes with regard to their effect on various fire zones in the Annex Building and Turbine Building for conformance to the guidance in Regulatory Guide 1.189, Revision 2, "Fire Protection for Nuclear Power Plants," (Reference 5). As stated in Section 4.1.2 of Reference 5, in accordance with GDC 3, structures, systems and components (SSCs) important to safety must be designed and located to minimize the probability and effect of fires and explosions. The concept of compartmentalization meets GDC 3, in part, by using passive fire barriers to subdivide the plant into separate fire areas or zones. The primary purpose of these fire areas or zones is to confine the effects of fires to a single compartment or area, thereby minimizing the potential for adverse effects from fires on redundant SSCs important to safety. Title 10 CFR 50.48(a)(2)(iii) requires that, "The means to limit fire damage to structures, or components important to safety so that the capability to shut down the plant safely is ensured." Thus, fire zones that meet the guidance of Reference 5 satisfy the requirements of 10 CFR 50.48(a)(2)(iii).

3.2 Evaluation

3.2.1 Annex Building and Turbine Building Layout Changes

3.2.1a Annex Building Computer Room Wall Change

In the current design, as depicted in the Reference 4, Figure 9A-3, Sheet 2, the Annex Building Computer Room A is larger than Computer Room B. The proposed change would move the wall between Annex Building Computer Rooms A and B towards the east in order to resize the rooms to be approximately equal size. The wall to be moved is a 2-hour rated fire wall. As part of the proposed change, one entrance from the corridor to Computer Room A is removed. The Tier 2* and Tier 2 figures from Reference 4 that describe this change are shown in Enclosure 1 Table 2.1-1 of Reference 1.

In Reference 1, SCE&G stated that the design function of the wall between Computer Rooms A and B (Fire Areas 4041 AF 01 and 4031 AF 02) is to provide a 2-hour fire barrier between the two rooms and that this design function is not changed by the relocation. The fire areas within the Annex Building are separated from the safety-related areas of the nuclear island by 3-hour fire barriers, which are not affected by the proposed change. Therefore, the capability of the plant to achieve and maintain safe shutdown following a fire is maintained.

The staff reviewed the licensee's analysis provided in Reference 1 and finds that relocating the 2-hour fire rated wall meets the guidance in Reference 5 because the relocated wall will have the same fire rating as the original wall and that adequate access and egress for manual fire suppression is still provided. Accordingly, the proposed changes to the Tier 2* and Tier 2 figures in Enclosure 1, Table 2.1-1 of Reference 1 meet the requirements of 10 CFR 50.48 (a)(2)(iii) and the staff, therefore, finds the changes are acceptable with regard to fire protection.

The NRC staff also reviewed the proposed change with regard to fire protection associated with malevolent aircraft impact. In Reference 1, SCE&G stated that, because these changes do not affect any key design features identified in Reference 4, Subsection 19F.4.2, there is no effect on the Appendix 19F, "Malevolent Aircraft Impact Assessments."

The staff reviewed Reference 4, Subsection 19F.4.2, "Site Arrangement," and finds that the relocation of this fire wall does not affect any key design features credited in the aircraft impact assessment. Accordingly, the proposed changes to the Tier 2* and Tier 2 figures in Enclosure 1 Table 2.1-1 of Reference 1 continue to meet the requirements of 10 CFR 50.150 with regard to malevolent aircraft impact.

3.2.1b Turbine Building LOS Room Changes

The proposed changes would alter the shape of the LOS Room 20407 (in the southwest corner of the Turbine Building, on Elevation 117'-6") to allow room for a main steam pipe configuration change and to maintain a personnel pathway around Room 20407, which is required to have 3-hour rated fire walls, floor and ceiling. Stairway S12, which provides access to Room 20407, is to be relocated from the north side of Room 20407 to the east side. The Tier 2* and Tier 2 figures from Reference 6 that describe this change are shown in Enclosure 1 Table 2.1-2 in Reference 1.

In Reference 1, SCE&G stated that the LOS Room 20407 (Fire Area 2040 AF 01) fire boundary would continue to provide a 3-hour fire barrier for the lube oil system components including the oil storage tanks and that stairway S12 would continue to provide access to Room 20407. Reconfiguring Room 20407 and relocating stairway S12 do not affect the operation or function of any SSC contained inside the room or within the vicinity of the room, and do not affect the fire loading analysis. The proposed changes to Room 20407 do not result in an increase in fire hazard risk, nor has an effect on the capability of the plant to achieve and maintain safe shutdown following a fire.

The staff reviewed the licensee's analysis provided in Reference 1 and finds that changing the shape of the 3-hour fire rated wall meets the guidance in Reference 5, because the fire wall retains the same fire rating as originally designed and that adequate access and egress for manual fire suppression is still provided. Accordingly, the proposed changes to the Tier 2* and Tier 2 figures in Enclosure 1, Table 2.1-2 of Reference 1 meet the requirements of 10 CFR 50.48 (a)(2)(iii) and the staff, therefore, finds the changes are acceptable with regard to fire protection.

The NRC staff also reviewed the proposed change with regard to fire protection associated with malevolent aircraft impact. In Reference 1, SCE&G stated that, because these changes do not affect any key design features identified in Reference 4, Subsection 19F.4.2, there is no effect on the Appendix 19F, "Malevolent Aircraft Impact Assessments."

The staff reviewed Reference 4, Subsection 19F.4.2, "Site Arrangement," and finds that changing the shape of the 3-hour fire rated wall will still meet the guidance of NEI 07-13, Revision 8, "Methodology for Performing Aircraft Impact Assessments for New Plants," (Reference 6) because the reconfigured fire wall will have the same fire rating as the original wall. The other changes associated with the drawings in Enclosure 1 Table 2.1-2 are not significant with regard to fire protection associated with malevolent aircraft impact. Accordingly, the proposed changes to the Tier 2* and Tier 2 figures in Enclosure 1 Table 2.1-2 of Reference 1 continue to meet the requirements of 10 CFR 50.150 with regard to fire protection associated with malevolent aircraft impact.

3.2.1c Turbine Building Egress Changes

The purpose of this change is to meet federal and state requirements to comply with the National Fire Protection Association (NFPA) Life Safety Code 101 (NFPA 101, Reference 7) egress requirements. The proposed change would add a new stairway S15 in the northwest corner of the Turbine Building to provide access between Elevation 100'-0", 141'-3" and 158'-7". The Tier 2* and Tier 2 figures in Reference 6 that describe this change are shown in Enclosure 1 Table 2.1-3 of Reference 1.

In Reference 1, SCE&G stated that the walls of this new stairway that are exposed to the Turbine Building interior will be constructed with a concrete/steel composite material that will have a minimum fire rating of 2-hours. The walls that face the yard area and are not exposed to the Turbine Building interior will be constructed with an exterior siding common to the overall siding used for the Turbine Building. SCE&G also stated that consistent with the treatment of other stairways, the quantity of combustible materials in stairway S15 is negligible since stairways are not allowed to be used for storage. Therefore, the addition of stairway S15 does not result in an increase in fire hazard risk, or have any effect on the capability of the plant to achieve and maintain safe shutdown following a fire.

The staff reviewed the licensee's analysis provided in Reference 1 and finds that the addition of stairway S15 is acceptable because the fire rating of the interior walls of stairway S15 and administrative controls meet the guidance in Reference 5. Accordingly, the proposed changes to the Tier 2* and Tier 2 figures in Enclosure 1 Table 2.1-3 of Reference 1 meet the requirements of 10 CFR 50.48 (a)(2)(iii) and the staff, therefore, finds the changes are acceptable with regard to fire protection.

The NRC staff also reviewed the proposed change with regard to fire protection associated with malevolent aircraft impact. In Reference 1, SCE&G stated that, because these changes do not affect any key design features identified in Reference 4, Subsection 19F.4.2, there is no effect on the Appendix 19F, "Malevolent Aircraft Impact Assessments."

The staff reviewed Reference 4, Subsection 19F.4.2, "Site Arrangement," and finds that the addition of a new stairway S15 does not affect any key design features credited in the aircraft impact assessment. Accordingly, the proposed changes to the Tier 2* and Tier 2 figures in Enclosure 1, Table 2.1-3 of Reference 1 continues to meet the requirements of 10 CFR 50.150 with regard to fire protection associated with malevolent aircraft impact.

3.2.2 Turbine Building Stairwell S08 Changes to Support Egress Functions

The proposed changes to Turbine Building Stairway S08 reconfigure and relocate stairway S08 to the southwest corner of the Turbine Building and add stairway S08 to fire area 2000 AF 02 with a 2-hour fire rated enclosure and two new fire doors in order to comply with Reference 7 egress requirements. Reference 7 defines egress paths as consisting of an exit access, exit, and exit discharge. Unenclosed stairway S08 is considered part of the exit access in the current design. Reference 7, Section 40.2.4.1.1 states that "not less than one exit shall be reached without traversing another story." An "exit" is a separated component from a means of egress. The current design plan utilizes an unenclosed stairway that does not qualify as an "exit." By enclosing stairway S08, compliance to have one qualified "exit" from the basement Elevation 82'-9" per Reference 7 is met. The Tier 2* and Tier 2 figures in Reference 4 that describe this change are shown in Enclosure 1, Table 2.2-1 of Reference 1.

In Reference 1, SCE&G stated that the walls of this stairway that are exposed to the Turbine Building interior will be constructed with a concrete/steel composite material that will have a minimum fire rating of 2-hours. Consistent with the treatment of other stairways, the quantity of combustible materials in stairway S08 is negligible since stairways are not allowed to be used for storage. SCE&G also stated that the performance of the associated fire barriers is not affected and no safety-related or other equipment that is relied upon to achieve and maintain safe shutdown is affected; thus, the capability of the plant to achieve and maintain safe shutdown following a fire is maintained.

The staff reviewed the licensee's analysis provided in Reference 1 and finds that the relocation and enclosure of stairway S08 is acceptable because the fire rating of the interior walls of stairway S08 and administrative controls meet the guidance in Reference 5. Accordingly, the proposed changes to the Tier 2* and Tier 2 figures in Enclosure 1, Table 2.2-1 of Reference 1 meet the requirements of 10 CFR 50.48 (a)(2)(iii) and the staff, therefore, finds the changes acceptable with regard to fire protection.

The NRC staff also reviewed the proposed change with regard to fire protection associated with malevolent aircraft impact. In Reference 1, SCE&G stated that, because these changes do not affect any key design features identified in Reference 6, Subsection 19F.4.2, there is no effect on the Appendix 19F, "Malevolent Aircraft Impact Assessments."

The staff reviewed Reference 6, Subsection 19F.4.2, "Site Arrangement," and finds that the relocation and enclosure of stairway S08 does not affect any key design features credited in the aircraft impact assessment. Accordingly, the proposed changes to the Tier 2* and Tier 2 figures in Enclosure 1, Table 2.2-1 of Reference 1 continue to meet the requirements of 10 CFR 50.150 with regard to fire protection associated with malevolent aircraft impact.

3.2.3 Annex Building HVAC Shaft Clarification

As depicted in the Reference 4, Figure 9A-3 Sheet 2, the HVAC (air intake) shaft is attached to the wall in Annex Building Room 40412. This shaft is to be relocated off the wall, consistent with Reference 4, Figures 1.2-19, 12.3-1 (Sheet 12), 12.3-2 (Sheet 12) and 12.3-3 (Sheet 12). Moving the HVAC shaft, within Figure 9A-3 Sheet 2, is a fire area boundary change, and thus constitutes a Tier 2* information change. The proposed change is editorial, aiming to maintain consistency with other UFSAR figures.

In Reference 1, SCE&G stated that the relocation of the HVAC (air intake) shaft in Figure 9A-3 Sheet 2 is an editorial change to be consistent with Reference 4 Figures 1.2-19, 12.3-1 (Sheet 12), 12.3-2 (Sheet 12) and 12.3-3 (Sheet 12). There is no related design or functional change. The HVAC shaft would maintain its 2-hour fire barrier rating and would continue to be part of fire area 4051 AF 01. There is no combustible material load change. Moving the HVAC shaft in a Reference 4 figure does not affect the fire area barrier performance with its interfacing fire area, and does not affect any safe shutdown equipment or function. Therefore, moving the HVAC shaft in a Reference 6 figure does not result in an increase in fire hazard risk, or have any effect on the capability of the plant to achieve and maintain safe shutdown following a fire.

The staff reviewed the licensee's analysis provided in Reference 1 and finds that relocating the HVAC (air intake) shaft within Figure 9A-3 Sheet 2 off the wall to be consistent with other Reference 4 figures is acceptable because there is no physical design change and thus does not affect fire protection analyses including those associated with malevolent aircraft impact.

3.2.4 Security Plan Evaluation

3.2.4a Introduction

Because Reference 1 as supplemented by Reference 2 had the potential to affect the licensee's security plans, which are described in Section 13.6 of the licensee's UFSAR, the staff reviewed the changes to ensure that the licensee's security plans continue to provide high assurance and meet the requirements of 10 C.F.R. 73.55. Further, the licensee addressed security considerations in Enclosure 1 to Reference 1. The NRC staff's review confirmed that the information in the LAR-13-12, and material incorporated by reference provided the information required for reviewing any changes to physical security.

In Section 3 of Enclosure 1 of Reference 1 the licensee provided several areas for security considerations which also include the Physical Security Hardware- Inspection Testing, Analyses, and Acceptance Criteria (PS-ITAAC). The licensee's assessment regarding the impact of the changes described in LAR 13-12 on physical security were summarized in Enclosure 1 in bullets.

3.2.4b Physical Barrier

The following requirements are established in 10 CFR 73.55(e): "Each licensee shall identify and analyze site-specific conditions to determine the specific use, type, function, and placement of physical barriers needed to satisfy the physical protection program design requirements of 10 CFR 73.55(b)," (1) The licensee shall: (i) "Design, construct, install and maintain physical barriers as necessary to control access into facility areas for which access must be controlled or denied to satisfy the physical protection program design requirements of paragraph (b) of this section."

- Bullet 1 of Enclosure 1, states "The proposed changes have no effect on any physical barriers credited by the Physical Security Plan for adversary delay."

The NRC staff reviewed the licensee's description in Reference 1, "Physical Security Evaluation," Enclosure 1, bullet 1, for its effect on the implementation of the site specific physical protection program. The NRC staff confirmed that the proposed changes have no effect on any physical barrier credited by the Physical Security Plan (PSP) and therefore do not result in any adverse changes to physical barriers. The staff finds that the proposed changes are acceptable and the high assurance requirement of 10 CFR 73.55 will continue to be met.

3.2.4c Protective Strategy- Ingress Pathways and Associated Timelines

The provisions of 10 CFR 73.55(b)(4), require, in part, that, "the licensee shall analyze and identify site-specific conditions including target sets, that may affect the specific measures needed to implement the requirements of 10 CFR 73.55 and shall account for these conditions in the design of the physical protection program."

The provisions of 10 CFR 73.55(k)(8)(ii) require, in part, that the licensee initiate response actions to interdict and neutralize threats in accordance with the requirements of Part 73, Appendix C, Section II, the SCP, and the licensee's response strategy.

- Bullet 2 of Enclosure 1, states "The proposed changes have no effect on ingress pathways to vital areas as described in the Physical Security Plan."

- Bullet 4 of Enclosure 1, states “The proposed changes have no effect on the pathways, associated timelines, utilized by security force personnel to respond to external security response positions as described in the Physical Security Plan.”

The NRC staff reviewed the licensee’s description in Reference 1, “Physical Security Evaluation,” Enclosure 1 bullets 2 and 4, for its effect on the implementation of the site specific physical protection program in Sections 11.5 and 14.5 of the PSP Section 8 of the SCP and information provided in Westinghouse TR-94. The NRC staff confirmed that the proposed changes do not change ingress pathways to vital areas or the pathways, associated timelines, utilized by security force personnel to respond to external security response positions as described in the Physical Security Plan and TR-94. The proposed changes are acceptable and the high assurance requirement of 10 CFR 73.55 and 10 CFR 73.55(k)(8)(ii) will continue to be met.

3.2.4d Response Requirements

- Bullet 3 of Enclosure 1, states “The proposed changes do not result in the addition, deletion or relocation of a security response position as described in Physical Security Plan.”

The provisions of 10 CFR 73.55(k) require, in part, that the licensee establish and maintain a properly trained, qualified and equipped security force required to interdict and neutralize threats up to and including the DBT defined in 10 CFR 73.1, to prevent significant core damage and spent fuel sabotage.

The NRC staff reviewed the licensee’s description in Reference 1, “Physical Security Evaluation,” Enclosure 1 bullet 3, for its effect on the implementation of the site specific physical protection program. The NRC staff confirmed that the proposed changes described in Reference 1, “Physical Security Evaluation,” Enclosure, 1 bullet 3, do not result in the addition, deletion, or relocation of a security response position as described in the PSP. The proposed changes are acceptable and the high assurance requirement of 10 CFR 73.55 will continue to be met.

3.2.4e Illumination

- Bullet 5 of Enclosure 1, states “The proposed changes do not result in any adverse changes to security lighting required to meet regulation.”

The provisions of 10 CFR 73.55(i)(6) require, in part, that all areas of the facility are provided with illumination necessary to satisfy the design requirements of 10 CFR 73.55(b) and to implement the protective strategy. The NRC staff reviewed the licensee’s description in Reference 1, “Physical Security Evaluation,” Enclosure 1, bullet 5, for its effect on the implementation of the site specific physical protection program. The NRC staff confirmed that the proposed changes do not adversely change security lighting. The proposed changes are acceptable and the high assurance requirement of 10 CFR 73.55 will continue to be met.

3.2.4f Physical Security – ITAAC

In Section 3 of Enclosure 1 of Reference 1, “Physical Security Evaluation,” the licensee addressed how the proposed change in LAR-13-12 related to the PS-ITAAC. The licensee

stated that, “the review confirmed that the proposed changes do not affect any of the existing ITAAC related to physical security.”

The NRC staff confirmed that the proposed changes describe in Reference 1, “Physical Security Evaluation,” does not impact any of the existing PS - ITAAC and therefore, the proposed changes are acceptable.

3.3 Conclusion

The NRC staff has reviewed the licensee’s analysis provided in Reference 1 and concludes the following with regard to fire protection analyses:

- The Annex Building Computer Room Wall Change, Turbine Building LOS Room Changes, Turbine Building Egress Changes, and the Turbine Stairwell S08 Changes to Support Egress meet the guidance in Reference 5. Accordingly, the staff concludes that there is reasonable assurance that the requirements of 10 CFR 50.48 will continue to be met for these proposed changes.
- The proposed change involving Annex Building HVAC Shaft Clarification in Reference 4, Figure 9A-3 Sheet 2 is not a physical design change and does not impact the fire hazard analysis.

The NRC staff has reviewed the licensee’s analysis provided in Reference 1 and concludes the following with regard to fire protection analyses associated with malevolent aircraft impact:

- The Turbine Building LOS Room Changes meet the guidance in Reference 6 since the reconfigured fire wall will have the same fire rating as the original wall. Accordingly, the staff concludes that there is reasonable assurance that the requirements of 10 CFR 50.150 will continue to be met for this proposed change.
- The Annex Building Computer Room Wall Change, Turbine Building Egress Changes, and the Turbine Stairwell S08 Changes to Support Egress do not affect any key design feature credited in the aircraft impact assessment and thus compliance with regard to 10 CFR 50.150 is not effected.
- The proposed change involving Annex Building HVAC Shaft Clarification in Reference 4, Figure 9A-3 Sheet 2 is not a physical design change and does not impact the fire hazard analysis associated with malevolent aircraft impact.

Based on the above conclusions regarding fire protection and fire protection analyses associated with malevolent aircraft impact the NRC staff concludes that the proposed changes to Tier 2* and associated Tier 2 material, described in Reference 1, are acceptable.

The NRC staff has reviewed the licensee’s analysis provided in Reference 1 and concludes the following with regard to physical security:

- The proposed changes are acceptable and the high assurance requirement of 10 CFR 73.55 will continue to be met.

Based on the above conclusions regarding physical security the NRC staff concludes that the proposed changes to Tier 2* and associated Tier 2 material, described in Reference 1, are 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

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (78 FR 60321; published on October 1, 2013). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 CONCLUSION

The staff has concluded, based on the considerations discussed in Section 3.2 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. Therefore, the staff finds the changes proposed in this license amendment acceptable.

7.0 REFERENCES

1. License Amendment Request 13-12 – Fire Area Boundaries, letter from SCE&G dated July 17, 2013 (ADAMS Accession No. ML13200A048)
2. VCSNS Units 2&3 LAR 13-12S1: Supplement to License Amendment Request 13-12 Fire Area Boundaries (ADAMS Accession No. ML14189A273).
3. VCSNS Units 2&3 LAR 13-12S2: Supplement 2 to License Amendment Request 13-12 Fire Area Boundaries (ADAMS Accession No. ML14189A273).
4. Virgil C. Summer Nuclear Station (VCSNS) Updated Final Safety Analysis Report (UFSAR), Revision 1, dated July 11, 2013 (ADAMS Accession No. ML13217A253).
5. Regulatory Guide 1.189, Revision 2, "Fire Protection," (ADAMS Accession No. ML092580550).
6. NEI 07-13, Revision 8, "Methodology for Performing Aircraft Impact Assessments for New Plants."
7. National Fire Protection Association (NFPA) Life Safety Code 101 (NFPA 101), 2003 Edition.
8. AP1000 Design Control Document, Revision 19, dated June 13, 2011 (ADAMS Accession No. ML11171A087).
9. U.S. Nuclear Regulatory Commission, "Final Safety Evaluation Report for Combined Licenses for Virgil C. Summer Nuclear Station, Units 2 and 3," Volume 1, NUREG 2153, dated September 30, 2013 (ADAMS Accession No. ML13275A125).
10. Final Safety Evaluation Report Related to Certification of the AP1000 Standard Plant Design, NUREG-1793, Supplement 2, dated August 5, 2011 (ADAMS Accession No. ML112061231).

The following documents contain security-related or safeguards information and are not publicly available:

11. NEI 03 12, "Template for the Security Plan, Training and Qualification Plan, Safeguards Contingency Plan, and Independent Spent Fuel Installation Security Program," Revision 6.
12. AP1000 DCD, including Technical Report (TR) 49, "AP1000 Enhancement Report," TR-94, "AP1000 Safeguards Assessment Report," and TR-96, "Interim Compensatory Measures Report."