

SAFETY EVALUATION BY THE OFFICE OF NEW REACTORS  
RELATED TO EXEMPTION AND AMENDMENT NO. 75  
TO THE COMBINED LICENSE NOS. NPF-93 AND NPF-94 RESPECTIVELY  
SOUTH CAROLINA ELECTRIC & 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 December 6, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16342B712), and supplemented by letter dated May 25, 2017, (ADAMS Accession No. ML17145A236), the South Carolina Electric & Gas Company on behalf of itself and the South Carolina Public Service Authority (both hereafter called the licensee) requested that the Nuclear Regulatory Commission (NRC) amend Virgil C. Summer Nuclear Station (VCSNS) Units 2 and 3, Combined License (COL) Numbers NPF-93 and NPF-94, respectively. The License Amendment Request (LAR) 16-20 requested changes to the minimum volume of the in-containment refueling water storage tank (IRWST) in plant-specific Updated Final Safety Analysis Report (UFSAR) Table 14.3-2, COL Appendix A Technical Specifications 3.5.6, 3.5.7 and 3.5.8 and Surveillance Requirements 3.5.6.2 and 3.5.8.2, COL Appendix C Table 2.2.3-4, and Tier 1 Table 2.2.3-4. The proposed changes restore the desired consistency of these sections with the UFSAR IRWST minimum volume value in other locations.

The licensee has also requested an exemption from the provisions of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52, Appendix D, "Design Certification Rule for the AP1000 Design," Section III.B, "Scope and Contents." The requested exemption would allow a departure from the corresponding portions of the certified information in Tier 1 of the generic DCD.<sup>1</sup> In order to modify the UFSAR (the plant-specific design control document (PS-DCD)) Tier 1 information, the NRC must find the licensee's exemption request included in its submittal for the LAR to be acceptable. The staff's review of the exemption request, as well as the LAR, is included in this safety evaluation.

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<sup>1</sup> While the licensee describes the requested exemption as being from Section III.B of 10 CFR Part 52, Appendix D, the entirety of the exemption pertains to proposed departures from Tier 1 information in the generic design control document (DCD). In the remainder of this evaluation, the U.S. Nuclear Regulatory Commission (NRC) will refer to the exemption as an exemption from Tier 1 information to match the language of Section VIII.A.4 of 10 CFR Part 52, Appendix D, which specifically governs the granting of exemptions from Tier 1 information.

In letter dated May 25, 2017, (ADAMS Accession Nos. ML17145A236), the licensee provided additional information that supplemented the application. This information did not expand the scope of the application, and did not change the NRC staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on January 24, 2017 (82 FR 8220).

## 2.0 REGULATORY EVALUATION

10 CFR Part 50, Appendix A, General Design Criterion (GDC) 2, "Design Basis for Protection Against Natural Phenomena," requires that structures, systems and components (SSCs) important to safety shall be designed to withstand the effects of natural phenomena such as earthquakes, tornadoes, hurricanes, floods, tsunami, and seiches without loss of capability to perform their safety functions.

GDC 4, "Environmental and Dynamic Effects Design Basis," requires that systems, structures, and components can withstand the dynamic effects associated with missiles, pipe whipping, and discharging fluids, excluding dynamic effects associated with pipe ruptures, the probability of which is extremely low under conditions consistent with the design basis for the piping.

GDC 35, "Emergency Core Cooling," requires that a system to provide abundant emergency core cooling be provided. The system safety function shall be to transfer heat from the reactor core following any loss of reactor coolant at a rate such that (1) fuel and clad damage that could interfere with continued effective core cooling is prevented and (2) clad metal water reaction is limited to negligible amounts.

GDC 36, "Inspection of Emergency Core Cooling System," requires that the emergency core cooling system be designed to permit appropriate periodic inspection of important components, such as spray rings in the reactor pressure vessel, water injection nozzles, and piping, to assure the integrity and capability of the system.

GDC 37, "Testing of Emergency Core Cooling System," requires that the emergency core cooling system be designed to permit appropriate periodic pressure and functional testing to assure (1) the structural and leaktight integrity of its components, (2) the operability and performance of the active components of the system, and (3) the operability of the system as a whole and, under conditions as close to design as practical, the performance of the full operational sequence that brings the system into operation, including operation of applicable portions of the protection system, the transfer between normal and emergency power sources, and the operation of the associated cooling water system

Appendix D, Section VIII.A.4 to 10 CFR Part 52 states that exemptions from Tier 1 information are governed by the requirements in 10 CFR 52.63(b)(1) and 10 CFR 52.98(f). It also states that the Commission will deny such a request if it finds that the design change will result in a significant decrease in the level of safety otherwise provided by the design.

Appendix D, Section VIII.B.5.a allows an applicant or licensee who references this appendix to depart from Tier 2 information, without prior NRC approval, unless the proposed departure involves a change to or departure from Tier 1 information, Tier 2\* information, or the Technical Specifications, or requires a license amendment under paragraphs B.5.b or B.5.c of the section.

10 CFR 52.63(b)(1) allows the licensee who references a design certification rule to request NRC approval for an exemption from one or more elements of the certification information. The Commission may only grant such a request if it determines that the exemption will comply with the requirements of 10 CFR 52.7, which, in turn, points to the requirements listed in 10 CFR 50.12 for specific exemptions, and the special circumstances present outweigh any decrease in safety that may result from the reduction in standardization caused by the exemption. Therefore, any exemption from the Tier 1 information certified by Appendix D to 10 CFR Part 52 must meet the requirements of 10 CFR 50.12, 52.7, and 52.63(b)(1).

10 CFR 52.98(f) requires NRC approval for any modification to, addition to, or deletion from the terms and conditions of a COL. These activities involve a change to COL Appendix C Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) information, with corresponding changes to the associated PS-DCD Tier 1 information. Therefore, NRC approval is required prior to making the plant specific proposed changes in this license amendment request.

### 3.0 TECHNICAL EVALUATION

#### 3.1 EVALUATION OF EXEMPTION

The regulations in Section III.B of Appendix D to 10 CFR Part 52 require a holder of a COL referencing Appendix D to 10 CFR Part 52 to incorporate by reference and comply with the requirements of Appendix D, including certified information in Tier 1 of the generic AP1000 DCD. Exemptions from Tier 1 information are governed by the change process in Section VIII.A.4 of Appendix D of 10 CFR Part 52. Because the licensee has identified changes to plant-specific Tier 1 information, with corresponding changes to the associated COL Appendix C information resulting in the need for a departure, an exemption from the certified design information within plant-specific Tier 1 material is required to implement the LAR.

The Tier 1 information for which a plant-specific departure and exemption was requested relates to the passive core cooling system (PXS). The result of this exemption would be that the licensee could implement modifications to Tier 1 information to the UFSAR as well as departures from a PS-DCD Tier 2 table, and a COL Appendix C table. Pursuant to the provisions of 10 CFR 52.63(b)(1), an exemption from elements of the design as certified in the 10 CFR Part 52, Appendix D, design certification rule is requested for the involved Tier 1 information described and justified in LAR 16-20. This exemption is a permanent exemption limited in scope to the particular Tier 1 information specified.

As stated in Section VIII.A.4 of Appendix D to 10 CFR Part 52, an exemption from Tier 1 information is governed by the requirements of 10 CFR 52.63(b)(1) and 52.98(f). Additionally, Section VIII.A.4 of Appendix D to 10 CFR Part 52 provides that the Commission will deny a request for an exemption from Tier 1 if it finds that the requested change will result in a significant decrease in the level of safety otherwise provided by the design. Pursuant to 10 CFR 52.63(b)(1), the Commission may, grant exemptions from one or more elements of the certification information, so long as the criteria given in 10 CFR 52.7, which, in turn, references 10 CFR 50.12, is met and that the special circumstances, which is defined by 10 CFR 50.12(a)(2), outweigh any potential decrease in safety due to reduced standardization.

Pursuant to 10 CFR 52.7, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR Part 52. As 10 CFR 52.7 further states, the Commission's consideration will be governed by 10 CFR 50.12, "Specific exemptions," which states that an exemption may be granted when: (1) the exemptions are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security; and (2) special circumstances are present. Specifically, 10 CFR 50.12(a)(2) lists 6 circumstances for which an exemption may be granted. It is necessary for one of these bases to be present in order for the NRC to consider granting an exemption request. The licensee stated that the requested exemption meets the special circumstances of 10 CFR 50.12(a)(2)(ii). That subparagraph defines special circumstances as when "[a]pplication of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule." The staff's analysis of these findings is presented below:

### 3.1.1 AUTHORIZED BY LAW

The requested exemption would allow the licensee to implement a revision to Tier 1, Table 2.2.3-4 in the PS-DCD. This exemption is a permanent exemption limited in scope to particular Tier 1 information. Subsequent changes to Tier 1, Table 2.2.3-4 or any other Tier 1 information would be subject to the exemption process specified in Section VIII.A.4 of Appendix D to 10 CFR Part 52 and the requirements of 10 CFR 52.63(b)(1). As stated above, 10 CFR Part 52, Appendix D, Section VIII.A.4 allows the NRC to grant exemptions from one or more elements of the Tier 1 information. The NRC staff has determined that granting of the licensee's proposed exemption will not result in a violation of the Atomic Energy Act of 1954, as amended, or the Commission's regulations. Therefore, as required by 10 CFR 52.7 and 10 CFR 50.12(a)(1), the exemption is authorized by law.

### 3.1.2 NO UNDUE RISK TO PUBLIC HEALTH AND SAFETY

The underlying purpose of Appendix D to 10 CFR 52 is to ensure that a licensee will construct and operate the plant based on the approved information found in the generic DCD incorporated by reference into a licensee's licensing basis. The changes proposed by the licensee do not add or delete systems or equipment as described in Tier 1 of the generic DCD. These changes will not impact the ability of the systems or equipment to perform their design function. Because they will not alter the operation of any plant equipment or systems, these changes do not present an undue risk from existing equipment or systems. These changes do not add any new equipment or system interfaces to the current plant design. The description changes do not introduce any new industrial, chemical, or radiological hazards that would represent a public health or safety risk, nor do they modify or remove any design or operational controls or safeguards intended to mitigate any existing on-site hazards. Furthermore, the proposed changes would not allow for a new fission product release path, result in a new fission product barrier failure mode, or create a new sequence of events that would result in significant fuel cladding failures. Accordingly, these changes do not present an undue risk from any new equipment or systems. Therefore, as required by 10 CFR 52.7 and 10 CFR 50.12(a)(1), the staff finds that there is no undue risk to public health and safety.

### 3.1.3 CONSISTENT WITH COMMON DEFENSE AND SECURITY

The proposed exemption would allow a change to elements of the PXS as presented in the system based design ITAAC table in the PS-DCD Tier 1, thereby departing from the AP1000 certified (Tier 1) design information. The change does not alter or impede the design, function,

or operation of any plant structures, systems, or components associated with the facility's physical or cyber security and, therefore, does not affect any plant equipment that is necessary to maintain a safe and secure plant status. In addition, the changes have no impact on plant security or safeguards. Therefore, as required by 10 CFR 52.7 and 10 CFR 50.12(a)(1), the staff finds that the common defense and security is not impacted by this exemption.

#### 3.1.4 SPECIAL CIRCUMSTANCES

Special circumstances, in accordance with 10 CFR 50.12(a)(2), are present, in part, whenever application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule. The underlying purpose of the Tier 1 information is to provide design information to ensure that the IRWST is constructed as designed so as to contribute to adequate core cooling. The proposed changes would allow changes to the IRWST volume, aligning the ITAAC for the minimum IRWST volume with other UFSAR descriptions and analyses, and enhancing the accuracy of details as presented in Tier 1 ITAAC table. The proposed changes resolve inconsistencies in the UFSAR and maintain the design function of the PXS. The changes do not impact the ability of any SSCs to perform their functions or negatively impact safety. These changes will enable the licensee to safely construct and operate the AP1000 facility consistent with the design certified by the NRC by clarifying the information mentioned above and found in Tier 1, Table 2.2.3-4 of the plant-specific DCD.

Special circumstances are present in the particular circumstances discussed in LAR 16-20 because the application of the specified Tier 1 information does not serve the underlying purpose of the rule. The proposed change implements changes to the IRWST volume, as presented in a Tier 1 ITAAC table. This exemption requests revisions to Tier 1 Table 2.2.3-4 that continue to demonstrate that the applicable regulatory requirements will be met. The changes to the IRWST volume ensure consistency in the UFSAR IRWST water volume amounts, and therefore ensure that the design can be implemented in accordance with the purpose of the rule. Therefore, for the above reasons, the staff finds that the special circumstances required by 10 CFR 52.7 and 10 CFR 50.12(a)(2)(ii) for the granting of an exemption from the Tier 1 information exist.

#### 3.1.5 SPECIAL CIRCUMSTANCES OUTWEIGH REDUCED STANDARDIZATION

This exemption would allow the implementation of changes to Tier 1, Table 2.2.3-4 in the PS-DCD. The design functions of the system associated with this request will continue to be maintained because the associated revisions to Table 2.2.3-4 demonstrate that the applicable regulatory requirements will continue to be met. This exemption will allow changes that will correct inconsistencies in the UFSAR that do not contribute to the benefits of standardization. Consequently, the safety impact that may result from any reduction in standardization are minimal, while the proposed changes to the IRWST will allow the applicant to construct the system as designed, consistent with the purposes of the rule. The proposed design change does not result in a reduction in the level of safety. Based on the foregoing reasons, as required by 10 CFR 52.7 and 10 CFR Part 52.63(b)(1), the staff finds that the special circumstances outweigh the effects the departure has on the standardization of the AP1000 design.

### 3.1.6 NO SIGNIFICANT REDUCTION IN SAFETY

This exemption would allow the implementation of changes to Tier 1, Table 2.2.3-4 in the PS-DCD. The exemption request proposes to depart from the certified design by allowing changes to the IRWST volume as presented in Tier 1 ITAAC table. The changes for consistency will not impact the functional capabilities of this system. The proposed changes will not adversely affect the ability of the PXS to perform its design functions, and the level of safety provided by the current systems and equipment therein is unchanged. Therefore, based on the foregoing reasons and as required by 10 CFR 52.7, 10 CFR 52.98(f), and 10 CFR Part 52, Appendix D, Section VIII.A.4, the staff finds that granting the exemption would not result in a significant decrease in the level of safety otherwise provided by the design.

### 3.2 TECHNICAL EVALUATION OF PROPOSED CHANGES

In LAR 16-20, the licensee proposed to make changes that would correct inconsistencies in the UFSAR and the COL Appendix A Technical Specification (TS) for the specification of the PXS required IRWST minimum water volume. The required IRWST minimum water volume is 73,100 ft<sup>3</sup>. UFSAR Table 6.3-2 specifies the required IRWST minimum water volume as 73,100 ft<sup>3</sup>. COL Appendix A TS 3.5.6, 3.5.7, and 3.5.8, specify the required IRWST minimum water volume as greater than 73,100 ft<sup>3</sup>. UFSAR Table 14.3-2 specifies an IRWST minimum required water volume of 73,900 ft<sup>3</sup>, and COL Appendix C and PS-DCD Tier 1 ITAAC Table 2.2.3-4 Acceptance Criteria 8.c)vi), specify a required IRWST minimum tank volume of 73,900 ft<sup>3</sup> and COL Appendix C, the corresponding plant-specific Tier 1 information, as well as the UFSAR. The changes affect the IRWST as summarized below:

The results of the UFSAR Chapter 15 accident analyses are acceptable assuming a required IRWST minimum water volume of 73,100 ft<sup>3</sup>. Therefore, the required IRWST minimum water volume listed in UFSAR Table 14.3-2 is reduced from 73,900 ft<sup>3</sup> to 73,100 ft<sup>3</sup>, and the calculated volume of the IRWST between the tank outlet connection and the tank overflow stated in COL Appendix C ITAAC Table 2.2.3-4 Acceptance Criteria 8.c)vi) is reduced from  $\geq 73,900$  ft<sup>3</sup> to  $\geq 73,100$  ft<sup>3</sup>, with corresponding changes to the associated PS-DCD Tier 1 information. COL Appendix A TS 3.5.6, 3.5.7, 3.5.8 include changes to the IRWST minimum volume from  $> 73,100$  ft<sup>3</sup> to  $\geq 73,100$  ft<sup>3</sup> (and the associated Surveillance Requirements (SR) from  $\leq 73,100$  and  $> 70,907$  ft<sup>3</sup> to  $< 73,100$  and  $\geq 70,907$  ft<sup>3</sup>) to be consistent throughout the licensing basis.

The proposed changes for the IRWST include changes to UFSAR Table 14.3-2, COL Appendix A TS 3.5.6, 3.5.7, and 3.5.8, COL Appendix C ITAAC Table 2.2.3-4 Acceptance Criteria 8.c)vi), and corresponding changes to the associated PS-DCD Tier 1 information. Therefore, NRC approval is required for the Tier 1 and related Tier 2 departures.

#### Proposed UFSAR, TS, and ITAAC changes:

The following licensing basis changes are proposed:

1. UFSAR Table 14.3-2 is revised to reduce the required IRWST minimum water volume from 73,900 ft<sup>3</sup> to 73,100 ft<sup>3</sup>.
2. COL Appendix A TS 3.5.6 Condition D is revised to specify required actions with an IRWST borated water volume  $< 73,100$  ft<sup>3</sup> and  $\geq 70,907$  ft<sup>3</sup>.

3. COL Appendix A TS SR 3.5.6.2 is revised so that the IRWST borated water volume is  $\geq 73,100 \text{ ft}^3$ .
4. COL Appendix A TS 3.5.7 Condition D is revised to specify actions with an IRWST borated water volume  $< 73,100 \text{ ft}^3$  and  $\geq 70,907 \text{ ft}^3$ .
5. COL Appendix A TS 3.5.8 Condition D is revised to specify actions with an IRWST and refueling cavity borated water volume  $< 73,100 \text{ ft}^3$  and  $\geq 70,907 \text{ ft}^3$ .
6. COL Appendix A TS SR 3.5.8.2 is revised so that the IRWST and refueling cavity water total borated water volume is  $\geq 73,100 \text{ ft}^3$ .
7. COL Appendix C ITAAC Table 2.2.3-4 Acceptance Criteria 8.c)vi) is revised to reduce the acceptance criteria for the calculated volume of the IRWST between the tank outlet connection and the tank overflow from  $\geq 73,900 \text{ ft}^3$  to  $\geq 73,100 \text{ ft}^3$ , with corresponding changes to the associated plant-specific DCD Tier 1 information.

Appendix D, Section VIII.C.6 states that after issuance of a license, "Changes to the plant specific TS will be treated as license amendments under 10 CFR 50.90." 10 CFR 50.90 addresses the applications for amendments of licenses, construction permits and early site permits. As discussed above, changes to TS are requested, and thus an LAR (as submitted by the licensee on December 6, 2016 (ADAMS Accession No. ML16342B712) is required.

#### Evaluation of UFSAR, TS, and ITAAC Changes:

During review of the LAR, the staff identified the need for clarification regarding the statement that the UFSAR Chapter 15 accident analyses incorporate the proper IRWST minimum water volume of  $73,100 \text{ ft}^3$  as stated in the LAR in order to complete its evaluation of the proposed changes. Specifically, the staff needed to verify the statements made concerning the analyses the licensee stated were still acceptable as described in Enclosure 1 (specifically on pages 7 and 8). Therefore, the applicant made available the relevant supporting reports and calculations which further supports the LAR's conclusion that the existing UFSAR Chapter 15 safety analyses align with the underlying LAR descriptions and related conclusions. The list of documents made available by the applicant can be found at ADAMS Accession No. ML17145A236. The staff reviewed and found the licensee's supporting documentation does support the changes to the UFSAR and ITAACs concerning the IRWST volume in support of PXS operation.

Based on the staff's review of the LAR, as supported by the licensee's calculation notes and additional documentation, the staff finds that the licensee's analysis adequately demonstrated that the proposed changes to the UFSAR, TS and associated ITAAC would maintain the design and safety functions of the IRWST injection and recirculation functions (the supported passive residual heat removal (PRHR) or automatic depressurization system (ADS) functions). The IRWST would continue to be available to mitigate the required transient and accident conditions. Also, the staff finds that the proposed changes would not affect the previously evaluated and approved PXS safety-related and nonsafety-related design functions described in the UFSAR. Additionally, because the results and consequences of the small-break loss-of-coolant accident (LOCA) transient analyses, large-break LOCA analyses, long-term core cooling analyses, containment analyses, and transient analyses described in the UFSAR are still acceptable, compliance with GDCs 2, 4, 35, 36, and 37 is not adversely affected by these proposed changes. Because no functional changes are proposed in the LAR and the components continue to perform their function as described in the UFSAR for both normal and anticipated operational occurrences, the staff finds that there is no reduction in safety as a result of this change. The staff concludes that there is reasonable assurance that the IRWST will perform

the function set forth as described in the UFSAR and the related GDCs for this LAR will continue to be met, therefore, the proposed changes are acceptable.

### 3.3 SUMMARY

In LAR 16-20, the licensee proposed to make changes that would affect the COL Appendix C, the corresponding plant-specific Tier 1 information, as well as the UFSAR, ITAAC, and Tier 2 TS. The proposed changes do not adversely affect any safety-related equipment or function, design function, radioactive material barrier, or safety analysis. The NRC documented its review of the above changes in Section 3.2 of this safety evaluation and finds the changes acceptable in accordance with 10 CFR 50, Appendix A, GDCs 2, 4, 35, 36, and 37.

### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations in 10 CFR 50.91(b)(2), 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, "*Standards for Protection Against Radiation.*" 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. Also, 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 (82 FR 8220, published on January 24, 2017). 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.

Because the exemption is necessary to allow the changes proposed in the license amendment, and because the exemption does not authorize any activities other than those proposed in the license amendment, the environmental consideration for the exemption is identical to that of the license amendment. Accordingly, the exemption meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment needs to be prepared in connection with the issuance of the exemption.

### 6.0 CONCLUSION

The staff has determined that pursuant to Section VIII.A.4 of Appendix D to 10 CFR Part 52, the exemption (1) is authorized by law, (2) presents no undue risk to the public health and safety, (3) is consistent with the common defense and security, (4) does not present special circumstances, (5) does not reduce the level of safety at the licensee's facility. Therefore, the staff grants the licensee an exemption from the Tier 1 information requested by the licensee.

The staff has concluded, based on the considerations discussed in Section 3.2 and confirming that these changes do not change an analysis methodology, assumptions, or the design itself, that there is reasonable assurance that: (1) 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. South Carolina Electric & Gas Company, Virgil C. Summer Nuclear Station Units 2 and 3, "Request for License Amendment and Exemption: IRWST Volume Changes," dated December 6, 2016 (ADAMS Accession No. ML16342B712).
2. South Carolina Electric & Gas Company, Virgil C. Summer Nuclear Station Units 2 and 3, "LAR 16-20S1: Voluntary Supplement to VCSNS Units 2&3 Request for License Amendment and Exemption: IRWST Volume Changes," dated May 25, 2017 (ADAMS Accession No. ML17145A236).
3. VCSNS Units 2 and 3 Updated Final Safety Analysis Report, Revision 4, dated July 1, 2016 (ADAMS Accession No. ML16193A096).
4. AP1000 Design Control Document, Revision 19, dated June 13, 2011 (ADAMS Accession No. ML11171A500).
5. Combined License NPF-93 for VCSNS Unit 2, SCE&G (ADAMS Accession No. ML14100A092).
6. Combined License NPF-94 for VCSNS Unit 3, SCE&G (ADAMS Accession No. ML14100A101).