

SAFETY EVALUATION BY THE OFFICE OF NEW REACTORS
RELATED TO EXEMPTION AND AMENDMENT NOS. 103 AND 102
TO THE COMBINED LICENSE NOS. NPF-91 AND NPF-92
SOUTHERN NUCLEAR OPERATING COMPANY, INC.
GEORGIA POWER COMPANY
OGLETHORPE POWER COMPANY
MEAG POWER SPVM, LLC
MEAG POWER SPVJ, LLC
MEAG POWER SPVP, LLC
CITY OF DALTON, GEORGIA
VOGTLE ELECTRIC GENERATING PLANT, UNITS 3 AND 4
DOCKET NOS. 52-025 AND 52-026

1.0 INTRODUCTION

By letter dated December 14, 2016, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16349A583), Southern Nuclear Operating Company (SNC), the licensee for the Vogtle Electric Generating Plant (VEGP) Units 3 and 4, submitted a license amendment request (LAR) 16-033. The requested amendment is revised by the letter dated August 25, 2017 (ADAMS Accession No. ML17237C049), the submittal to clarify that the proposed changes associated with the requested amendment do not include design changes or plant function changes. The proposed amendment describes changes as consistency changes. This revision is in response to feedback that was provided by the U.S. Nuclear Regulatory Commission (NRC) during the review of South Carolina Electric and Gas Company (SCE&G), the licensee for Virgil C. Summer Nuclear Station's (VCSNS) LAR 15-10. At the time, the NRC was reviewing SCE&G's LAR 15-10, which was consistent in technical content with SNC's LAR 16-033; however, when SCE&G announced the decision to cease construction of VCSNS, SNC assumed the lead on this LAR. SNC also requested related exemptions from the Commission's regulations. The August 25, 2017, letter replaces SNC's LAR 16-033 in its entirety and includes changes to the Significant Hazards Consideration Determination.

LAR 16-033 requested consistency changes that would revise descriptions of the auxiliary building design to align with descriptions elsewhere in combined license (COL) Appendix C (and corresponding plant-specific Design Control Document (DCD) Tier 1 information) and the Updated Final Safety Analysis Report (UFSAR), specifically the design thicknesses of the auxiliary building column line 1 wall and column line I wall, and the location description for the auxiliary building labyrinth wall.

Pursuant to the provisions of 10 CFR 52.63(b)(1), SNC 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.¹ 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.

2.0 REGULATORY EVALUATION

The NRC staff considered the following regulatory requirements in reviewing the licensee's proposed LAR and exemption request:

The proposed LAR would depart from the incorporated PS-DCD Tier 1 information with corresponding changes to the associated COL Appendix C information and Tier 2* information in the Updated Final Safety Analysis Report (UFSAR). Specifically the design thicknesses of the auxiliary building column line 1 wall and column line I wall, and the location description for the auxiliary building labyrinth wall. The licensee states that the changes are due to descriptive inconsistencies between COL Appendix C (and plant-specific Tier 1), Table 3.3-1 and UFSAR Tier 2* Figure 3.7.2-12 Sheets 3 and 10. A consistency change is also proposed to amend the wall location description of the auxiliary building labyrinth wall between column lines 3 and 4 and between J-1 and J-2 from Elevation 82'-6" and 92'-6" in COL Appendix C (and plant-specific Tier 1) Table 3.3-1. In addition, UFSAR Subsection 3H.5.1.1 is revised for consistency. Before the licensee may modify the Tier 1 information in the UFSAR (the plant-specific DCD), the NRC must grant the licensee's exemption.

The regulation in 10 CFR Part 52, Appendix D, Section VIII.A.4, 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 plant safety otherwise provided by the design.

¹ 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.

The regulation in 10 CFR 52.63(b)(1) allows the licensee who references a design certification rule to request NRC's 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. In addition, the Commission must consider whether special circumstances, as required by 10 CFR 52.7 and 50.12, 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 Part 52.98(f) states that any modification to, addition to, or deletion from the terms and conditions of a COL, including any modification to, addition to, or deletion from the inspection, test, analysis, and acceptance criteria (ITAAC) contained in the license is a proposed amendment to the license. Appendix C of the COLs contain information which the licensee is proposing to modify. Therefore, the proposed change requires a license amendment.

10 CFR Part 52.98(c)(1) states that changes to or departures from information within the scope of the referenced design certification rule are subject to the applicable change processes in that rule. The NRC staff considered the following regulatory requirements in reviewing the LAR that included changes in the proposed UFSAR.

10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," Appendix A, "General Design Criteria for Nuclear Power Plants," General Design Criterion (GDC) 1, "Quality Standards and Records," requires that structures, systems, and components (SSCs) important to safety shall be designed, fabricated, erected, and tested to quality standards commensurate with the importance of safety functions to be performed.

GDC 2, "Design Bases for Protection Against Natural Phenomena," requires that SSCs important to safety shall be designed to withstand the effects of natural phenomena such as earthquakes, tornadoes, hurricanes, floods, tsunamis, and seiches without loss of capability to perform their safety functions.

GDC 4, "Environmental and Dynamic Effects Design Basis," requires that SSCs important to safety shall be designed to accommodate the effects of and to be compatible with the environmental conditions associated with normal operation, maintenance, testing, and postulated accidents, including loss-of-cooling accidents.

The proposed LAR would depart from the incorporated PS-DCD Tier 1 information with corresponding changes to the associated COL Appendix C information and Tier 2* information in the UFSAR. Specifically the design thicknesses of the auxiliary building column line 1 wall and column line I wall, and the location description for the auxiliary building labyrinth wall. SNC states that the changes are due to descriptive inconsistencies between COL Appendix C, Table 3.3-1 and plant-specific Tier 1, Table 3.3-1 and UFSAR Tier 2* Figure 3.7.2-12 Sheets 3 and 10. In addition to that, UFSAR Subsection 3H.5.1.1 is revised for consistency. Before the licensee may modify the Tier 1 information in the UFSAR (the plant-specific DCD), the NRC must grant the licensee's exemption.

The Tier 1 information for which a plant-specific departure and exemption was requested includes corresponding changes to COL Appendix C information. The result of this exemption would be that the licensee could implement modifications to Tier 1 information described and justified in LAR 16-033 if, and only if, the NRC approves LAR 16-033. This exemption is a permanent exemption limited in scope to the particular Tier 1 information specified.

3.0 TECHNICAL EVALUATION

3.1 EVALUATION OF EXEMPTION

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 design 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, are met, and that the special circumstances as 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; (2) will not present an undue risk to the public health and safety; (3) are consistent with the common defense and security; (4) special circumstances are present; (5) special circumstances outweigh reduced standardization; and (6) there is no significant reduction in safety. Specifically, 10 CFR 50.12(a)(2) lists six special circumstances for which an exemption may be considered. It is necessary for one of these special circumstances to be present in order for the NRC to consider granting an exemption request. The licensee stated in this LAR that the requested exemption meets the special circumstances of 10 CFR 50.12(a)(2)(ii). That subparagraph defines special circumstances as when "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 NRC staff's analysis and evaluation of each of these conditions for an exemption are presented below.

3.1.1 AUTHORIZED BY LAW

This exemption would allow the licensee to amend COL Appendix C (and plant-specific Tier 1) Table 3.3-1 and UFSAR Tier 2* Subsection 3H.5.1.1 information regarding the auxiliary building column line 1 wall and column line I wall to conform to the wall thicknesses that are described elsewhere in Tier 1 and the UFSAR, which are unchanged from the design described in Revision 19 of the AP1000 DCD. A consistency change is also proposed to amend the wall location description of the auxiliary building labyrinth wall between column lines 3 and 4 and between J-1 and J-2 from Elevation 82'-6" and 92'-6" in COL Appendix C (and plant-specific Tier 1) Table 3.3-1. This change corrects an inconsistency identified between the COL Appendix C (and plant-specific Tier 1) and the design of the labyrinth wall. There is no technical

design change or plant function change associated with this license amendment. The proposed consistency changes require revisions to COL Appendix C (and plant-specific Tier 1 information), and UFSAR Tier 2* information. This is a permanent exemption limited in scope to particular Tier 1 information, and subsequent changes to Tier 1 Table 3.3-1 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. As stated above, 10 CFR 52.63.b(1) and Section VIII.A.4 of Appendix D to 10 CFR Part 52 allow the NRC to grant exemptions from one or more elements of the certification 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 regulations, as stated above. Therefore, pursuant to 10 CFR 52.7 and 10 CFR 50.12(a)(1), the NRC staff finds the exemption is authorized by law.

3.1.2 NO UNDUE RISK TO THE PUBLIC HEALTH AND SAFETY

The underlying purpose of Appendix D to 10 CFR Part 52 is to ensure that the licensee will construct and operate the plant based on the approved information found in the DCD incorporated by reference into the licensee's licensing basis. The changes to the design details for the auxiliary building walls do not have an adverse impact on the response of the nuclear island structures to safe shutdown earthquake ground motions, loads due to anticipated transients, or postulated accident conditions, nor do they change the seismic Category I classification. These changes will not impact the ability of the structures to perform their design function. Because the changes 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 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, operational controls, or safeguards intended to mitigate any existing onsite 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 50.12(a)(1), the granting of the exemptions will not present undue risk to public health and safety.

3.1.3 CONSISTENT WITH COMMON DEFENSE AND SECURITY

The exemption from the requirements of 10 CFR Part 52, Appendix D, Section 111.B would revise the design thicknesses of the auxiliary building column line 1 wall and column line I wall, and the location description for the auxiliary building labyrinth wall, as presented in plant-specific Tier 1 information, thereby departing from the AP1000 certified design information. The proposed exemption will enable performance of the ITAAC associated with these changed elements, by reflecting the corrected design information in the text and tables that are referenced in these ITAAC. The exemption does not alter or impede the design, function, or operation of any plant SSCs 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)(ii), are present 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 purposes of the Tier 1 information is to ensure that the licensee will safely construct and operate the plant based on the certified information found in the AP1000 DCD that was incorporated by reference into the licensee's licensing basis. The changes to the auxiliary building column line 1 wall and column line I wall in plant-specific Tier 1 Table 3.3-1 maintain and update the necessary information in the table to confirm that the SSCs related to this activity are constructed in accordance with the design certification as verified by COL Appendix C and plant-specific Tier 1 Table 3.3-6 ITAAC. The proposed correction to the wall description for auxiliary building labyrinth wall between column lines 3 and 4 and between J-1 and J-2 revises the description of the labyrinth wall in the plant-specific Tier 1 to more accurately reflect the design of the AP1000 auxiliary building.

The proposed consistency change to Tier 1 information is to the design thicknesses of the auxiliary building column line 1 wall and column line I wall, and the location description for the auxiliary building labyrinth wall. These consistency changes do not impact the ability of any SSCs to perform their functions or negatively impact safety. Accordingly, this exemption from the certification information will enable the SNC to safely construct and operate the AP1000 facility consistent with the design certified by the NRC in 10 CFR 52, Appendix D. Staff concludes that special circumstances are present, because application of the current plant-specific certified design information in Tier 1 as required by 10 CFR Part 52, Appendix D, Section 111.B in the particular circumstances discussed in this request is not necessary to achieve the underlying purpose of the rule. Therefore, because the application of Section III.B of Appendix D to 10 CFR Part 52 in this circumstance does not serve the underlying purpose of the rule, the staff finds that the special circumstances required by 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

Under 10 CFR 52.63(b)(1), "[i]n addition to the factors listed in § 52.7, the Commission shall consider whether the special circumstances that § 52.7 requires to be present outweigh any decrease in safety that may result from the reduction in standardization caused by the exemption." This exemption would allow the implementation of changes to Table 3.3-1, in Tier 1 of the plant-specific DCD, as proposed in the LAR. Based on the nature of the proposed changes to the plant-specific Tier 1 information and the understanding that these changes were identified during the design finalization process for the AP1000, this exemption may be requested by other AP1000 licensees and applicants. However, a review of the reduction in standardization resulting from the departure from the standard DCD determined that even if other AP1000 licensees and applicants do not request this same departure, the special circumstances will continue to outweigh any decrease in safety that may result from the reduction in standardization because the changes remove the discrepancy between the detailed design and the certified design basis. There is no reduction in safety due to these changes and the key design functions of the auxiliary building walls associated with this request will continue to be maintained. The changes have no effect on any SSCs meeting their design function. Therefore, as required by 10 CFR 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 Table 3.3-1 in Tier 1 as proposed in the LAR 16-033. The proposed changes to the design details for the auxiliary building column line 1 wall and column line I wall in plant-specific Tier 1 Table 3.3-1 maintain and update the necessary information in the table to confirm that the SSCs related to this activity are constructed in accordance with the design certification as verified by plant-specific Tier 1 Table 3.3-6 ITAAC. The proposed correction to the wall description for auxiliary building labyrinth wall between column lines 3 and 4 and between J-1 and J-2 aligns the description of the labyrinth wall in plant-specific Tier 1 to more accurately reflect the design of the AP1000 auxiliary building. Therefore, as required by 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

COL Appendix C Table 3.3-1 and plant-specific Tier 1 Table 3.3-1 define wall thicknesses for the nuclear island, turbine, and annex buildings. These design characteristics are required to be verified by ITAAC during construction.

To perform the technical evaluation related to proposed changes to wall thicknesses and location of changes, in the auxiliary building, the NRC staff considered the information in Section 3.8.4 of "Updated Final Safety Evaluation Report Revision 5 for the Vogtle Electric Generating Plant Units 3 and 4 Combined License Application," (ADAMS Accession No. ML16180A413) and Standard Review Plan Section 3.8.4 for guidance on the acceptance of the wall design. The SRP 3.8.4 provides an acceptable method for meeting the requirements of GDC 1, 2, and 4. The staff also reviewed portions of NUREG-1793, Supplement 2, "Updated Final Safety Evaluation Report Related to Certification of the AP1000 Standard Plant Design," (ADAMS Accession No. ML112061231). The VEGP Units 3 and 4 UFSAR documents the technical evaluation of those aspects of the AP1000 DCD and the VEGP Units 3 and 4 COL application, respectively. The staff reviewed the LAR 16-033 and its enclosures to evaluate the impact of the requested UFSAR changes and the effect of these changes on seismic Category I SSCs.

3.2.1 AUXILIARY BUILDING WALL THICKNESSES CHANGES

The VEGP Units 3 and 4 COL Appendix C (and plant-specific Tier 1) Section 3.3 provides a description of the nuclear island structures that include the containment (the steel containment vessel and the containment internal structure) and the shield and auxiliary buildings. The containment, shield and auxiliary buildings are structurally integrated on a common basemat, which is embedded below the finished plant grade level. The auxiliary building is reinforced concrete and houses the safety-related mechanical and electrical equipment located outside the containment and shield buildings. SSCs identified as essential targets are protected from the dynamic and environmental effects of postulated pipe ruptures by the design of the auxiliary building flood barriers described in UFSAR Subsection 3.4.1.2.2.2 and identified in COL

Appendix C Table 3.3-1 and plant-specific Tier 1 .

SNC's LAR 12-008, approved by Amendment No. 6 (ADAMS Accession No. ML13074A139), made various consistency changes to COL Appendix C Table 3.3-1 and plant-specific Tier 1 Table 3.3-1 to align the table to the corresponding Tier 2 design drawings. For clarity and consistency, a new line item was added to COL Appendix C Table 3.3-1 and plant-specific Tier 1 Table 3.3-1 to clarify the wall thickness for the column line I wall between column lines 3 and 4 and between elevations 100'-0" and 107'-2". However, the thickness of the wall section was incorrectly marked as 3'-0" in COL Appendix C Table 3.3-1 and plant-specific Tier 1 Table 3.3-1. The actual thickness of this wall is correctly shown in Tier 2* Figure 3.7.2-12 Sheet 3 as 2'-0".

In COL Appendix C Table 3.3-1 and plant-specific Tier 1 Table 3.3-1, the description of the labyrinth wall between column lines 3 and 4 and between J-1 and J-2 from elevation 82'-6" to 92'-6" states that the wall is described as ending 7'-3" from column line J-2. The AP1000 detailed design documentation shows the distance from the center line of column line J-2 to the end of the labyrinth wall as 5'-2". The AP1000 detailed design documentation has shown the distance from the center line of column line J-2 as 5'-2" since the initial issuance of the design. During Revision 15 of the AP1000 DCD, this distance was incorrectly transcribed into COL Appendix C Table 3.3-1 and plant-specific Tier 1 Table 3.3-1 as 7'-3".

As noted in the application, the proposed wall thicknesses are equal to the thicknesses described in the MicroShield analysis (used as the basis of the approved DCD submittal) and the associated input parameters are consistent with those used in the analysis of the approved design.

3.2.2 DESCRIPTION OF WALL THICKNESSES CHANGES TO ADDRESS DESIGN INCONSISTENCY

The staff reviewed current information of the auxiliary building wall column line 1 sections, above elevation 100'-00" in UFSAR Tier 1 Table 3.3-1, and found that they are listed as follows:

- Thickness 2'-3", from column line I to 5'-6" east of column line L-2, from elevation 100'-0" to 180'-0"
- Thickness 3'-0", from 5'-6" east of column line L-2 to column line N, from elevation 100'-0" to 125'-0"
- Thickness 2'-3", from 5'-6" east of column line L-2 to column line N, from elevation 125'-0" to 180'-0"

The above information about these walls is inconsistent with the wall thickness identified in COL Appendix C Table 3.3-1 (and plant specific Tier 1 Figures 3.3-1, 3.3-6, 3.3-7, 3.3-8 and 3.3-9, and associated UFSAR Figures 1.2-8, 1.2-9, 1.2-10, 1.2-11, 1.2-13, and 3.7.7-12 Sheets 2, 4, 5, 6 and 8). The LAR proposes the following changes to the wall thicknesses to ensure consistency as follows:

- 2'-3", from column line I to 5'-7" west of column line K-2, from elevation 100'-0" to 109'-3"

- 3'-0", from 5'-7" west of column line K-2 to column line N, from elevation 100'-0" to 109'-3"
- 2'-3", from column line I to 5'-6" east of column line L-2, from elevation 109'-3" to 180'-0"
- 3'-0", from 5'-6" east of column line L-2 to column line N, from elevation 109'-3" to 125'-0"
- 2'-3", from 5'-6" east of column line L-2 to column line N, from elevation 125'-0" to 180'-0"

Also, UFSAR Tier 2* text in UFSAR Subsection 3H.5.1.1 lists the thickness of the column line 1 wall is 3'-0" below the grade and 2'-3" above the grade. This information is inconsistent with the wall thickness shown in Tier 1 and associated UFSAR figures above. To address these inconsistencies, changes to COL Appendix C (and plant-specific Tier 1) Table 3.3-1, and UFSAR Tier 2* Subsection 3H.5.1.1 are proposed to correct the thicknesses for the auxiliary building column line 1 wall between elevation 100'-0" and 109'-3". Modifications to these wall thicknesses establish consistency between the auxiliary building design and UFSAR Tier 1, Tier 2* and COL Appendix C. The licensee stated that the consistency change activity does not change the technical design of the wall and does not impact the structural design. The staff concluded that the auxiliary building wall thicknesses, in various portions of tables and text in the UFSAR, and COL Appendix C, are for consistency and not changes to the auxiliary building wall design. Therefore, the staff accepts these changes to ensure consistency amongst the different citations of the same wall.

The licensee stated that in COL Appendix C and plant-specific Tier 1 Table 3.3-1, the thickness of the auxiliary building column line I wall between column lines 3 and 4 from elevation 100'-0" to 107'-2" is shown as 3'-0". The thickness of this wall is correctly shown in Tier 2* Figure 3.7.2-12 Sheet 3 as 2'-0". This wall thickness as described in COL Appendix C and plant-specific Tier 1 requires revision to be consistent with the design of the auxiliary building described elsewhere in Tier 1 and the UFSAR, and to be consistent with Tier 1 Figure 3.3-6 and UFSAR Figure 3.7.2-12. The staff accepts the changes to be consistent with the UFSAR Tier 2* Figure 3.7.2-12 in COL Appendix C Table 3.3-1 and plant-specific Tier 1 Table 3.3-1. The staff considers these changes editorial in nature and they are not for design change of the wall.

In COL Appendix C Table 3.3-1 and plant-specific Tier 1 Table 3.3-1, the description of the labyrinth wall between column line 3 and 4 and between J-1 and J-2 from Elevation 82'-6" and 92'-6" states that the wall is located 7'-3" from column line J-2. The licensee stated that "the AP1000 design documentation has shown the distance from column line J-2 as 5'-2" since the initial issuance of the design". Also, the licensee obtained the correct distance by reviewing the detailed AP1000 design documentation and reviewing the relative scale shown on UFSAR Figure 3.7.2-12 Sheet 2. The staff considers the change editorial in nature and it does not affect the design of the wall. Therefore, it is acceptable.

3.3 SUMMARY OF TECHNICAL EVALUATION

Based on the staff's technical evaluation, the staff finds that the auxiliary building walls thicknesses changes described in LAR 16-033 are due to inconsistency between COL Appendix C (and plant-specific Tier 1) and UFSAR Tier 2* information. The staff concluded that there is no structural design changes to the walls proposed by the LAR that could affect the structural integrity of the auxiliary building and intended safety function of the auxiliary building as described in the UFSAR Subsection 3.7.2, 3.8.4 and Appendix H.

Since there have been no changes to the thickness or constitution of the walls evaluated as part of the approved DCD, the NRC staff also concludes that the resolution of wall thickness inconsistencies will not affect the radiation shielding analysis for normal, anticipated operational occurrences and accident conditions.

Based on the preceding evaluation, the NRC staff concludes that there is reasonable assurance that the requirements of GDC 1, 2 and 4 of Appendix A to 10 CFR Part 50, will continue to be met. Therefore, the staff finds the proposed consistency changes are acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations in 10 CFR 50.91(b)(1), the Georgia State official was consulted of the proposed issuance of the amendment on October 20, 2017. The State official had no comment.

5.0 ENVIRONMENTAL CONSIDERATION

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 (82 FR 46537, published on October 5, 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 nor 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 nor environmental assessment needs to be prepared in connection with the issuance of the exemption.

6.0 CONCLUSION

The staff has determined that pursuant to 10 CFR Part 52, Appendix D, Section VIII.A.4, 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) presents special circumstances, (5) the special circumstances outweigh the potential decrease in safety due to reduced standardization, and (6) 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. Letter from Southern Nuclear Operating Company RE: Resolution of Auxiliary Building Wall Thickness and Description Inconsistencies (LAR-16-1033), dated December 14, 2016 (Accession No. ML16349A583).
2. Letter from Southern Nuclear Operating Company RE: Resolution of Auxiliary Building Wall Thickness and Description Inconsistencies (LAR-16-1033, Revision 1), dated August 25, 2017 (Accession No. ML17237C049).
3. VEGP Units 3 and 4, Updated Final Safety Analysis Report, Revision 5, dated June 22, 2016 (ADAMS Accession No. ML16180A413).
4. AP1000 DCD Revision 19, dated June 13, 2012 (ADAMS Accession No. ML11171A087).
5. NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition," dated March 2007 (ADAMS Accession No. ML070660036).
6. NUREG-1793, Supplement 2, "Final Safety Evaluation Report Related to Certification of the AP1000 Standard Plant Design," dated August 2011 (ADAMS Accession No. ML112061231).
7. NUREG-2124, Volume 1, "Final Safety Evaluation Report Related to the Combined Licenses for Vogtle Electric Generating Plant, Units 3 and 4," dated September 2012 (ADAMS Accession No. ML12271A045).