

SAFETY EVALUATION BY THE OFFICE OF NEW REACTORS  
RELATED TO EXEMPTION AND AMENDMENT NO. 59  
TO THE COMBINED LICENSE NOS. NPF-91 AND NPF-92  
SOUTHERN NUCLEAR OPERATING COMPANY, INC.  
GEORGIA POWER COMPANY  
OGLETHORPE POWER CORPORATION  
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 May 17, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16138A431), the Southern Nuclear Operating Company (hereafter called the licensee) requested that the U.S. Nuclear Regulatory Commission (NRC) amend the combined licenses (COL) for Vogtle Electric Generating Plant (VEGP) Units 3 and 4, COL Numbers NPF-91 and NPF-92, respectively.

The proposed license amendment request (LAR) revises COL Appendix C and plant-specific Tier 1, Table 3.3-1, "Definition of Wall Thickness for Nuclear Island Buildings, Turbine Building, and Annex Building," to change the tolerance for the concrete wall thickness of the Column Line N from Column Lines 2 to 4 between elevation (EL.) 100'-0" and EL.135'-3" from  $\pm 1$  inch to a tolerance of -1 inch and +4 inches above grade.<sup>1</sup> For the remainder of the wall below grade, the concrete thickness tolerance remains unchanged as currently specified in Note 2 of Tier 1, Table 3.3-1, +12 inches and -1 inch. The licensee stated that the need for these proposed changes was identified during a survey performed of the CA20 module after placement during the construction of the fuel transfer canal. The Revision 2, Updated Final Safety Analysis Report (UFSAR), plant-specific Tier 1 information, and corresponding COL Appendix C information would allow an increase of the concrete wall thickness tolerances. The proposed changes would allow a revision of the following:

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<sup>1</sup> Grade is defined as 100'-0" elevation in COL Appendix C and Enclosure 1 of the LAR.

- 1) A new paragraph in the UFSAR Tier 2, Subsection 3.8.4.4.1, "Seismic Category I Structures," which states that the Column Line N wall from Column Line 2 to 4 from EL100'-0" to EL. 135'-3", the tolerance for the wall thickness is increased over those in American Concrete Institute (ACI) 349-01. The paragraph further stated that these walls were evaluated against ACI 349-01 reinforcement design requirements and demonstrated sufficient margin to accommodate the increased tolerance.
- 2) COL Appendix C (and plant-specific Design Control Document (DCD) Tier 1) Table 3.3-1 is revised to include the following two items:
  - a. A new footnote is added at the end as Note 11. It states that this wall thickness has a tolerance of +4 inches, -1 inch above grade.
  - b. The entry for the Column Line N wall from Column Line 2 to 4 is revised to include the new footnote (Note 11) for the concrete thickness of 5'-6".

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," to allow a departure from the corresponding portions of the certified information in Tier 1 of the generic DCD.<sup>2</sup> The proposed Tier 1 changes related to this exemption are identical in purpose and scope to the COL Appendix C changes proposed in the license amendment described in the previous paragraph.

In order to modify the Tier 1 UFSAR 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.

The NRC staff issued an initial *Federal Register* notice of opportunity to request a hearing and a proposed No Significant Hazard Determination on July 19, 2016 (81 FR 46958).

## **2.0 REGULATORY EVALUATION**

Pursuant to 10 CFR 52.63(b)(1), a licensee who references a design certification rule may request NRC approval for an exemption from one or more elements of the certification information. The Commission may grant such a request only 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 if the special circumstances present outweigh any decrease in safety that may result from the reduction in standardization caused by the exemption.

Under 10 CFR 52.98(f), any modification to, addition to, or deletion from the terms and conditions of a COL is a proposed amendment to the license.

In accordance with 10 CFR Part 52, Appendix D, Section VIII.A.4, exemptions from Tier 1 information are governed by the requirements in 10 CFR 52.63(b)(1) and 10 CFR 52.98(f). Additionally, 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.

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<sup>2</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 DCD. In the remainder of this evaluation, the 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.

As stated in 10 CFR Part 52, Appendix D, Section VIII.B.5.a, a licensee who references this appendix may 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, the technical specifications, or requires a license amendment under Paragraphs B.5.b or B.5.c of this section.

The NRC staff considered the following regulatory requirements in reviewing the LAR that detailed the proposed UFSAR changes:

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 the safety functions to be performed.

10 CFR Part 50, Appendix A, GDC 2, "Design Bases for Protection against Natural Phenomena," requires that structures, systems, and components 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.

10 CFR Part 50, Appendix A, GDC 4, "Environmental and Dynamic Effects Design Bases," requires that structures, systems, and components 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-coolant accidents.

### **3.0 TECHNICAL EVALUATION**

#### **3.1 EVALUATION OF EXEMPTION**

##### **INTRODUCTION**

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. Because the licensee has identified changes to Tier 1 information of the DCD, with corresponding changes to the associated COL Appendix C information, an exemption from the certified design information within the plant-specific Tier 1 material is required under 10 CFR 52.63(b)(1) to implement the LAR. In addition, the exemption is needed because Section VIII.A.4 of Appendix D to 10 CFR Part 52 requires a licensee to obtain an exemption to depart from the Tier 1 information of the generic AP1000 DCD.

The proposed changes would depart from the plant-specific DCD by adding Note 11 of Tier 1, Table 3.3-1, "Definition of Wall Thickness for Nuclear Island Buildings, Turbine Building, and Annex Building." Specifically, the added note, Note 11, depicts those walls as having a tolerance of plus four inches and minus one inch. The original wall thickness tolerance for the walls (as approved for the AP1000 DCD) is plus or minus one inch. The proposed change to increase the tolerance of the Column Line N wall, from Column Lines 2 to 4 (to shield building) from EL. 100'-0" to 135'-3", identified in Appendix C of the COL, Tier 1 and UFSAR

Section 3.8.4.4.1 of Tier 2 is a departure. As a result, an exemption is needed because Section III.B of Appendix D to 10 CFR Part 52 requires a licensee to comply with the Tier 1 information of the generic AP1000 DCD.

In summary, the end result of this exemption would be that the licensee can implement modifications to Tier 1 information described and justified in LAR 16-003 if and only if the NRC approves LAR 16-003. This exemption is permanent and limited in scope to the particular Tier 1 information.

As stated in Section VIII.A.4 and B.5.a 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, 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, upon application by an applicant or licensee referencing a certified design, 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 criteria in 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 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 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 that the requested exemption meets the special circumstances of 10 CFR 50.12(a)(2)(ii). That subsection 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 each of these findings is presented below.

### 3.1.1 AUTHORIZED BY LAW

This exemption would allow the licensee to implement approved changes to Tier 1, Table 3.3-1. This exemption is permanent and limited in scope to particular Tier 1 information. 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) 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 regulations, as stated above. Therefore, as required by 10 CFR 50.12(a)(1), the exemption is authorized by law.

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

10 CFR Part 52 Appendix D, Section III.B requires 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 structural walls neither 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 proposed changes neither introduce any new industrial, chemical, or radiological hazards that would represent a public health or safety risk nor 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 staff finds that there is no undue risk to public health and safety.

### 3.1.3 CONSISTENT WITH COMMON DEFENSE AND SECURITY

This exemption would allow changes to elements of Tier 1 of the plant-specific DCD, specifically to implement approved changes to Tier 1, Table 3.3-1. This exemption is permanent and limited in scope to particular Tier 1 information. Subsequent changes to Table 3.3-1 or any other Tier 1 information would be subject to 10 CFR Part 52 Appendix D, Section VIII.A.4. The change 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. Therefore, as required by 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 purpose 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, which was incorporated by reference into the licensee's licensing basis. The changes to the design details for the structural wall modules maintain the design margins of the internal containment structures. These changes are necessary to enhance the ability of the licensee to construct the plant based on the information in the certified design, by clarifying the information found in Table 3.3 1. If this exemption is not granted and the proposed changes in the LAR are not allowed to be implemented, then the Tier 1 Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) would not conform to the UFSAR Tier 2 design descriptions, and the performance of the Tier 1 ITAAC would not accurately verify construction of the proposed design. 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

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. The special circumstances will outweigh any decrease in safety from the reduction in standardization because the key design functions of the containment internal structural wall modules associated with this request will continue to be maintained. Furthermore, while the text in the Table 3.3-1 may be changed, the changes have no effect on any SSCs meeting their design function. Finally, the Tier 1 ITAAC would not conform to the UFSAR Tier 2 design descriptions and the performance of the Tier 1 ITAAC would not accurately verify construction of the proposed design. Therefore, as required by 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 Table 3.3-1 in Tier 1 of the plant-specific DCD proposed in the LAR. The proposed changes to the design details for the structural walls maintain the design margins of the internal containment structures. The proposed changes to Table 3.3-1 will not adversely affect the ability of the SSCs to perform their design functions and the level of safety provided by the SSCs is unchanged. 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 EVALUATION OF PROPOSED CHANGES

### INTRODUCTION

To perform the technical evaluation, the NRC staff considered UFSAR Tier 1 Section 3.3, "Buildings," and Tier 2 Section 3.8, "Design of Category I Structures." The staff also examined the portions of NUREG-1793, Supplement 2, "Final Safety Evaluation Report Related to Certification of the AP1000 Standard Plant Design" (ADAMS Accession No. ML112061231) and portions of NUREG-2124, Volume 1, "Final Safety Evaluation Report Related to the Combined Licenses for Vogtle Electric Generating Plant, Units 3 and 4," (ADAMS Accession No. ADAMS Accession No. ML12271A045) documenting the staff's technical evaluation of those aspects of the AP1000 DCD and VEGP Units 3 and 4, COL applications, respectively. The NRC staff reviewed the licensee's proposed UFSAR changes to wall thickness tolerances to confirm that the safety function of the affected walls is not compromised by the proposed increase in tolerance.

The auxiliary building (AB) south side used structural modules as stated in UFSAR Section 3.8.4.1.2, "Auxiliary Building." These modules include CA20 used for fuel transfer canal and spent fuel pool. The module walls, similar to modular construction described in UFSAR Section 3.8.3.1, "Description of the Containment Internal Structures," are a mix of steel-concrete composite modules that consist of steel faceplates connected by tie bars. Shear studs are welded to the interiors of the module faceplates. Steel faceplate connections are complete joint penetration welds such that the full capacity of the steel plates is developed

across the joint. Concrete is poured between the steel faceplates, which serve as forms. Once the concrete in the wall modules cures, the concrete, tie bars, faceplates, and the shear studs act as a lateral force resisting system, behaving as a shear wall, to resist design basis loads.

UFSAR Subsection 3.8.4.1.2 states that the AB walls are designed using reinforced concrete and structural steel. The Column Line N wall is a reinforced concrete wall, which intersects with the CA20 module on Column Lines 2 to 4 in the AB. The Column Line N wall is designed in accordance with the provisions of the ACI Code, ACI 349-01, "Building Code Requirements for Nuclear Safety Related Structures," and American Institute of Steel Construction (AISC) N690-1994.

Under this LAR, the licensee proposed to depart from the Tier 1 material in UFSAR Table 3.3-1, "Definition of Wall Thicknesses for Nuclear Island Buildings, Turbine Building, and Annex Building," as mentioned in Section 1.0 of this safety evaluation. The licensee further stated that the increased tolerance and connection designs maintain compliance with applicable design codes. The staff's evaluation of these design changes are summarized below.

### 3.2.1 Effect of Increase of Wall Thickness Tolerance on Structural Integrity

In the LAR, the licensee stated that the proposed changes to the Tier 1, Table 3.3-1 are required as a result of a misalignment discovered for the construction between the Column Line N wall and the corresponding location of the CA20 structural module. For the proposed changes, the licensee stated that it maintains the design requirements described in applicable portions of ACI-349-01, the American Welding Society D1.4-1998, and the AISC N690-94 as per Section 3.8.4 of the UFSAR.

The NRC staff reviewed the LAR and found that the proposed tolerance exceeds the specified tolerance in Table 3.3-1 for the wall thickness. The staff recognized that the affected wall (the Column Line N wall) is not characterized as a critical section as defined in Appendix 3H, "Auxiliary and Shield Building Critical Sections" of the UFSAR and is also not identified as Tier 2\* information. Therefore, the staff focused its review of the proposed increase tolerance (from plus one inch to plus four inch on the design commitments and the safety function of the affected walls. The staff considers the proposed increase in tolerance from plus one inch to plus four inch to be acceptable because the design of the affected walls is in accordance with ACI 349-01, which is consistent with the current approved design method in the certified AP1000 design. Likewise, the design change will not impact the safety function of the affected walls since the increased wall thickness will increase shear capacity and buckling resistance to the design basis loads. For the reasons stated above, the staff concludes that the proposed changes to Tier 1, Table 3.3-1, along with corresponding changes to COL Appendix C, and Section 3.8.4.4.1 of the UFSAR are acceptable.

### 3.2.2 Effect of Increase of Wall Thickness Tolerance on Radiation Exposure to Plant Personnel

The staff evaluated the effects of the increase of wall thickness tolerance for Column Line N wall from Column Line 2 to 4 above grade, described in the LAR, on radiation exposures to plant personnel.

As a result of a misalignment discovered in the survey during the installation of the CA20 module, modifications were required that exceeded the current concrete thickness wall tolerance of plus or minus one inch for the Column Line N wall from Column Lines 2 to 4 above grade. The LAR requested thickness tolerance is minus one inch and plus four inch for a length of 44 inches at the interface of these reinforced concrete walls to structural module connections at the Column Line N structural wall in the AB. Since the tolerance of minus one inch is unchanged by the LAR, the minimum thickness of the AB Column Line N, from Column Lines 2 to 4 shield wall are not further decreased. Since the licensee proposes to increase the tolerance from plus one inch to plus four inch, the thickness of these shield walls could increase by up to 3 inches. Since this proposed change may result in an increase to the thickness of these shield walls, the staff concludes that the AB shielding calculations will not be negatively impacted. In addition, based on its review, the staff further concludes that the proposed change will not negatively impact the radiation zones and radiological access controls for the nuclear island. Therefore, since this proposed modification does not adversely affect the shielding capability of the walls, the staff finds that there are no changes proposed or required under 10 CFR Part 20 that preclude a significant increase in occupational radiation exposure. On this basis, the staff finds that the proposed change to the concrete thickness tolerance for these walls to be acceptable.

### 3.2.3 Effect of Wall Thickness Changes on Water Inventory for the Fuel Transfer Canal

The staff evaluated the impact of wall thickness increases on the available water inventory for the spent fuel system (SFS) and for the fuel transfer canal. The staff reviewed UFSAR Table 9.1-2 and COL Appendix C, ITAAC 2.3.07.07b and found that a water inventory of 129,500 gallons is required for the SFS cooling and the fuel transfer canal has a volume capacity of 63,500 gallons. The applicant performed a volumetric survey and concluded that the volume based on current configuration of the fuel transfer canal continues to meet the ITAAC acceptance criteria and the survey data show that the volume is in excess of the requirements to maintain fuel coverage if the forced flow cooling capability is lost. Based on the survey data, the staff concludes that the AB wall thickness changes have insignificant impact on the water inventory for the fuel transfer canal.

### 3.2.4 Effect of Increase in Wall Thickness Tolerance on AB's Structural Dynamic Behavior

Because the tolerance increase in some portions of the AB wall thickness alters the AB's dynamic behavior, the staff examined the possibility of any adverse impact on the overall dynamic behavior of the structure. According to USFAR Section 3.8, the nuclear island finite element models used for the design analysis are based on the as-designed condition with simplifications and assumptions. The applicant stated that the overall change in thickness (3" increase over nominal thickness of 5'-6") resulted in only a 6 percent increase in mass for the local area related to the column line N wall, which is consistent with the staff's hand calculations. Based on structural mechanics principles, the increase in mass locally is proportional to the increase in both axial and shear stiffness, and the increase in wall thickness will increase the out-of-plane bending natural frequency by less than 10 percent. Because the affected wall is effectively a rigid member with natural frequency higher than 33 Hz, the slight increase in stiffness will not result in appreciable change in structural response in this local area.

On the other hand, the seismic response spectra generated as input to the SSC is generally broadened by +/- 15 percent to account for variations in natural frequencies due to uncertainties in material, soil, damping values, and modeling techniques, amongst other things.



Accordingly, the deviation from the tolerance in the Column Line N wall, which results in less than 10 percent change in natural frequency, is within the acceptable range of variations. Based on the assessment as described above, the staff concludes that the increase in wall thickness will have minor effect on the AB's dynamic response.

## CONCLUSION

The staff reviewed the licensee's proposed changes provided in the LAR. Based on the staff's technical evaluation, the staff finds that the proposed changes to include Note 11 in Tier 1 Table 3.3-1 and the addition of a new paragraph to Section 3.8.4.4.1 of the UFSAR provide wall thickness tolerance deviations that do not affect the structural integrity of the affected walls and the structural module CA20; and that the safety margin is adequate by following design bases code requirements. For the reasons specified above, the staff finds that the proposed UFSAR amendments to Tier 1, Table 3.3-1 and Tier 2 Subsection 3.8.4.4.1 of the UFSAR are acceptable.

Based on these findings, the NRC staff concludes that there is reasonable assurance that the requirements of GDC 1, GDC 2, and GDC 4 of 10 CFR Part 50 to 10 CFR Part 52 will continue to be met. Therefore, the staff finds the proposed changes to be acceptable.

## 4.0 STATE CONSULTATION

In accordance with the Commission regulations in 10 CFR 50.91(b), the designated State of Georgia official was notified of the proposed issuance of the amendment. The State of Georgia 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, 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 (July 19, 2016 (81 FR 46958)). 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 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 NRC 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) is a special circumstance that outweighs the reduction in standardization, and (5) does not significantly reduce the level of safety at the licensee's facility. Therefore, the staff grants the licensee an exemption from the Tier 1 information specified by the licensee.

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, the staff has concluded 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 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. "Request for License Amendment and Exemption: Column Line N Wall ITAAC Dimension Change (LAR-16-003)," letter from Southern Nuclear Operating Company, dated May 17, 2016 (ADAMS Accession No. ML1638A431).
2. AP1000 Design Control Document, Revision 19, dated June 13, 2012 (ADAMS Accession No. ML11171A500).
3. 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).
4. Vogtle Electric Generating Plant (VEGP) Updated Final Safety Analysis Report (UFSAR), Revision 5 dated July 17, 2016 (ADAMS Accession No. ML11180A100).
5. U.S. Nuclear Regulatory Commission, "Final Safety Evaluation Report Related to the Combined Licenses for Vogtle Electric Generating Plant, Units 3 and 4," dated August 2011 (ADAMS Accession No. ADAMS Accession No. ML12271A045).
6. American Concrete Institute (ACI), ACI-349-01, "Building Code Requirements for Nuclear Safety Related Structures," ACI 318-11, ACI 117, Section 4.
7. American Institute of Steel Construction (AISC), AISC-N690-1994, "Specification for the Design, Fabrication, and Erection of Steel Safety Related Structures for Nuclear Facilities."