SAFETY EVALUATION BY THE OFFICE OF NEW REACTORS

RELATED TO AMENDMENT NO. 63

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 August 11, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16224B122), Southern Nuclear Operating Company (SNC/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 (LAR 16-013) would revise the Updated Final Safety Analysis Report (UFSAR) in the form of departures from the plant-specific Design Control Document Tier 2 information. As described in detail in Section 3.2, below, the proposed amendment also involves related changes to COL Appendix C and corresponding Tier 1 information (Table 2.2.3-4). The proposed changes would depart from the licensing basis documents to (1) increase the credited frontal face area and screen surface area for the In-Containment Refueling Water Storage Tank (IRWST) screens, (2) modify the required elevation and front extension of the protective plate located above the containment recirculation (CR) screens to increase the maximum spacing above the CR screens and to decrease the minimum length that the protective plate must extend to the front of the CR screens, and (3) increase the maximum Normal Residual Heat Removal System (RNS) flow rate through the IRWST and CR screens.

SNC has also requested a permanent exemption from the provisions of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52, Appendix D, Section III.B, “Design Certification Rule for

the AP1000 Design, Scope and Contents," to allow a departure from the elements of the certification information in Tier 1 of the plant-specific AP1000 Design Control Document (DCD).[1]

In order to modify UFSAR (the plant-specific DCD) Tier 1 information, the NRC must find the licensee's exemption request included in its submittal for the LAR acceptable. The staff's review of both the exemption request and the license amendment request are included in this safety evaluation.

The NRC staff's proposed no significant hazards consideration determination was published in the *Federal Register* on September 27, 2016 (81 FR 66308).

2.0 REGULATORY EVALUATION

10 CFR Part 50, Appendix A, General Design Criterion (GDC) 35, "Emergency core cooling," requires, in part, that a system shall be provided to provide abundant emergency core cooling with suitable redundancy in components, features, and containment capabilities to assure that for onsite electric power system operation (assuming offsite power is not available) and for offsite electric power system operation (assuming onsite power is not available) the system safety function can be accomplished assuming a single failure. Inherent in this requirement is that the core cooling system have design features or provisions in place to mitigate against the adverse effects on emergency core cooling of debris following an accident.

Regulatory Guide (RG) 1.82, "Water Sources for Long-Term Recirculation Cooling Following a Loss-of-Coolant Accident," provides accepted methods for meeting the requirements associated with GDC 35. RG 1.82 states that a debris transport evaluation should be performed to determine what fraction of the containment debris transports to the emergency core cooling system strainers, and that testing should be performed to conservatively estimate the head loss over the strainers. Therefore, the staff reviewed the LAR with respect to the impacts of the proposed changes on the head loss testing and transport analysis used by the applicant for the AP1000 design.

10 CFR Part 52, Appendix D, Section VIII.A.4 states that exemptions from Tier 1 information are governed by the requirements of 10 CFR 52.63(b)(1) and 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.

10 CFR Part 52, Appendix D, Section VIII.B.5.a requires, among other things, that an applicant or licensee who references 10 CFR Part 52, Appendix D 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, or Technical Specifications, or requires a license amendment under paragraphs B.5.b or B.5.c of 10 CFR Part 52, Appendix D, Section VIII.

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

[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 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.

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. 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) 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 inspections, tests, analyses, or related acceptance criteria (ITAAC) contained in the license is a proposed amendment to the license. Appendix C of COLs NPF-91 and NPF-92 contain information which the licensee is proposing to modify. Therefore, the proposed change requires a license amendment.

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 an applicant or licensee 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, Tier 2, and the generic Technical Specifications. The licensee has identified changes to Tier 1 information, with corresponding changes to the associated COL Appendix C information, therefore an exemption from the certified information is required under 10 CFR 52.63(b)(1) to implement the LAR.

The Tier 1 information for which a plant-specific departure and exemption was requested in LAR 16-013 is related to the location of the protective plate above both CR screens and the length of the extension of the plate beyond the screen. Additionally, the plant-specific departure and exemption requested is related to the size of the frontal face areas and total screen surface areas of the IRWST screens. The result of this exemption would be that the licensee can implement modifications to Tier 1 information described and justified in LAR 16-013 if, and only if, the NRC approves LAR 16-013. This 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 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, is 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. 10 CFR 52.7 further states that the Commission's consideration will be governed by 10 CFR 50.12, which states that an exemption may be granted when: (1) the exemptions are authorized by law, will not present an undue risk to public health or safety, and are consistent with the common defense and security; and (2) special circumstances are present. 10 CFR 50.12(a)(2)

lists six special circumstances for which an exemption may be granted. It is necessary for one of these special circumstances to be present in order for 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 COL Appendix C and corresponding Tier 1 information in Tables 2.2.3-4. This is a permanent exemption limited in scope to the changes to Tier 1 information evaluated in Section 3.2 of this safety evaluation (SE), and 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. 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. Based on 10 CFR Part 52, Appendix D, Section VIII.A.4, the NRC staff has determined that granting 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 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 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 proposed changes continue to provide sufficient space surrounding the containment recirculation screens for debris to settle before reaching the screens at the proposed increase in RNS maximum flow rate (as confirmed by an evaluation demonstrating that the protective plate continues to fulfill its design function of preventing debris from reaching the screens). In addition, the increase to the minimum IRWST screen size reinforces the ability of the screens to perform their design function at the proposed increase in RNS maximum flow rate. These changes will not alter the operation of any plant equipment or system's ability to perform their design functions. 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 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 that are 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 50.12(a)(1), the staff finds that there is no undue risk to the public health and safety.

3.1.3 CONSISTENT WITH COMMON DEFENSE AND SECURITY

The proposed exemption would allow changes to the location and dimensions of the protective plate above the containment recirculation screens and would increase the minimum size of the IRWST screens, as presented in plant-specific Tier 1 information. The proposed changes will enable performance of the ITAAC associated with these changed elements, by reflecting the

revised design information in the text, and tables that are referenced in these ITAAC. This is a permanent exemption limited in scope to the changes to Tier 1 information evaluated in Section 3.2 of this SE. Subsequent changes to Table 2.2.3-4; or any other Tier 1 information would be subject to the exemption process in Section VIII.A.4 of Appendix D to 10 CFR Part 52. 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 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 proposed change to the location and dimensions of the protective plate continues to provide sufficient space surrounding the containment recirculation screens for debris to settle before reaching the screens. In addition, the increase to the minimum IRWST screen size reinforces the ability of the screens to perform their design function while providing the proposed maximum RNS flow rate through the IRWST screens. 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 found in Table 2.2.3-4. Therefore, because the application of the specified Tier 1 information without the changes requested in LAR 16-013 in this circumstance would 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 COL Appendix C and corresponding Tier 1 information in Table 2.2.3-4 proposed in the LAR. Based on the nature of the changes to the plant-specific Tier 1 information and the understanding that these changes are necessary to support the actual system functions, it is likely that other AP1000 licensees will request this exemption. However, if this is not the case, the special circumstances continue to outweigh any decrease in safety from the reduction in standardization because the design functions of the systems associated with this request involving an increase to the minimum IRWST screen size will reinforce the ability of the screens to perform their design function while providing the proposed maximum RNS flow rate through the IRWST screens. 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 found in Table 2.2.3-4. The proposed change demonstrates that there is a minimal change from the plant-specific AP1000 DCD, minimizing the reduction in standardization and consequently the safety impact from the reduction; 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 COL Appendix C and corresponding Tier 1 information in Tables 2.2.3-4 proposed in the LAR. The changes in location and dimensions of the protective plate above the CR screens will not impact the functional capabilities of these components. The proposed changes will not adversely affect the ability of any systems or equipment to perform their design functions, there are no new failure modes introduced by these changes and the level of safety provided by the current systems and equipment. It is concluded that the design change associated with this proposed exemption will not result in a significant decrease in the level of safety; 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

The licensee's proposed amendment would increase the credited screen area for the IRWST screens (reducing the margin between the credited area and the actual area of the screens), and reduce the size of the protective plate located above the containment recirculation screens. The evaluation below describes separately the changes to the IRWST screen area and the changes to the dimension of the protective plate over the containment recirculation screens.

3.2.1 Increase in IRWST screen area to accommodate the increased maximum RNS flow rate

The licensee evaluated the impacts of increasing the maximum flow rate of the RNS system to 2600 gpm on other components in the flow path, such as screens. To address these impacts, in LAR 16-013 the licensee proposes to increase the credited area (with no change to the physical screens themselves) of the IRWST screens frontal face area and screen area.

NRC staff evaluated whether an increase in RNS flow rate would have an adverse impact on any other systems, structures, or components in the plant. The staff reviewed the functions of the RNS system, and determined that the operative functions of the RNS system, save for the flow through the strainers and associated pressure losses, would not be adversely impacted by an increase in flow rate.

Strainer testing is generally performed with a scaled strainer and flow rate corresponding to the scaled strainer flow area. In order to ensure that the head loss testing remained applicable, the licensee increased the credited area of each of the screens by a larger fraction than the increase in the flow rate. The maximum flow rate was increased by approximately 11.2 percent, while the face areas were increased by 20 percent and the surface areas were increased by 11.5 percent. As the strainer head loss is dependent on the strainer flow area (in this case, the surface area of the strainer), the licensee's proposed areas ensure the referenced head loss testing performed for the certified design remains applicable, as there is slightly less flow per unit area of the screens. As a consequence of this change, the available uncredited area of the screens decreases. The total frontal face area of the screens is 110 ft^2, and the total screen surface area is 2390 ft^2, while the certified design credits 80 ft^2 and 2000 ft^2 of frontal face and surface area, respectively, and the proposed LAR credits 100 ft^2 and 2300 ft^2 for the two areas.

This increase in credited area represents a reduction in margin as compared to the certified design. In context, the reduction in margin is not substantial because:

- The debris head loss testing referenced that remains applicable shows an effective head loss of ~0 psi when subjected to the limiting debris load demonstrated by the transport analysis. Sensitivity analyses performed by the licensee show a head loss of up to 0.25 psi is acceptable for long-term core cooling. This margin would allow for some combination of additional debris or reduction in area beyond the conservatively calculated limiting values.

- Although the amount of additional screen area available in the as-built design is reduced, it is not eliminated. Approximately 10 percent and 4 percent of additional of frontal face and surface area remain available, respectively.

- The licensee is required to ensure the screens remain free of debris via inspection per technical specification surveillance requirement 3.5.6.9. This surveillance helps ensure the screens are initially unimpeded and extends to the entirety of the screens, not merely the credited area.

Ultimately, the combination of periodic inspection to ensure the strainer remains free of obstruction in concert with the excess screen area that remains available provides reasonable assurance that the screens will perform their function. The design criteria for the screens are satisfied and additional margin exists at numerous steps in the calculated head loss over the screens. In addition, substantial margin on top of the margin discussed here exists for natural circulation flow credited in the passive safety systems. As such, the staff finds the changes to the screen area in ITAAC Table 2.2.3-4, item 8.c)viii and UFSAR Table 6.3-2 acceptable.

3.2.2. Change to containment recirculation protective plate

The LAR also proposes changes to the UFSAR descriptions of the protective plate located over the CR screens, including both clarifications to the orientation and changes to the size of the plate. The licensee proposed changes to: ITAAC Table 2.2.3-4, items 8.c)vii and 8.c)xiii, UFSAR Sections 6.3.2.2.7.1, 6.3.2.2.7.3, and 19E.2.3.2.7, as well as UFSAR Table 14.3-2. The changes are similar in content in that they: revise the height above the screens from 1 foot to 1 foot, 3 inches; modify the extension distance from the face of the screens from 10 feet to 8 feet, 3 inches; clarify that plate is singular in nature (rather than referring to “plates”); and clarify that the distance the plate extends from the side of the screens is defined as 7 feet from the face of the sides of the screens, rather than just 7 feet from the sides. Additionally, further clarifications with respect to the definition of the height of the plate above the screens were proposed in UFSAR Section 6.3.2.2.7.1, and additional detail regarding the orientation of the protective plate with respect to steam generator compartment 2 and the vertical access corridor were proposed in UFSAR Section 6.3.2.2.7.3.

Upon review of the licensing documentation and layout, the staff determined the clarifications to the orientation of the protective plate and the choice of “a plate” rather than “plates” do not represent a technical change to the design. These UFSAR changes merely provide additional detail on the expected orientation and location of the as-built plate. The changes to the height and extension distance, however, do represent modifications that could affect the design function of the protective plate.

The protective plate has a design function to prevent nonsafety-related coating debris from reaching the containment recirculation screens. A debris transport and settling analysis was performed by the applicant to demonstrate this design function, and this analysis was revised as part of this LAR to confirm that the protective plate continues to perform its design function. For

the certified design, the staff found that the plate and curb in front of the screens in combination with the low approach velocity and coating density (in comparison to the test data in NUREG/CR-6916, “Hydraulic Transport of Coating Debris”) made it reasonable to assume that coating debris would not transport to the screens.

The licensee revised the debris settling analysis referenced in the LAR due to the changes in dimensions associated with the protective plate and the increase in maximum RNS flow discussed earlier in this evaluation. For the purposes of this LAR, the staff audited the licensee’s debris settling analysis to determine whether coating debris would reach the screens. In the audit, documented in further detail in the audit report (Reference 1), the staff found that SNC conservatively applied the settling data from NUREG/CR-6916 to determine the settling rate for debris near the containment recirculation screens. SNC then applied further margin to this assumed settling rate by applying a further factor of 1.4, so that debris effectively travels 1.4 times further horizontally than the rate from the NUREG would indicate. The licensee then applied this settling rate to the potential approach paths to the containment recirculation screens in order to determine the limiting path. Using this methodology, the licensee demonstrated that no coatings debris reaches the screens.

Staff reviewed the debris settling analysis and found that SNC conservatively predicted the settling rate, as:

- The settling rate is derived from the minimum settling rate among coatings used in NUREG/CR-6916 that are similar in density and composition to the coatings used in the AP1000.

- The maximum approach velocity in the AP1000 is significantly greater than the smallest velocity in NUREG/CR-6916, yielding an equal or more conservative rate than predicted, based on the velocity.

- The licensee applied a factor of margin (1.4 times) beyond the base value used in the guidance.

Furthermore, the staff also found during its audit (Reference 1) that the licensee performed a comprehensive assessment of the approach paths to the screens and used the transport path which yielded the closest debris approach and therefore the most conservative debris settling condition. As such, the staff finds it reasonable to assume that no coatings debris reaches the containment recirculation screens with the updated screen dimensions and RNS flow rate. In that context, the protective plate continues to perform its design function and the staff finds the proposed changes discussed above acceptable.

3.2.3 Summary of technical evaluation

Based on the analysis in Sections 3.2.1 and 3.2.2 above, the NRC finds that the licensee provided a reasonable basis showing that the IRWST and containment recirculation screens will continue to perform their intended functions accounting for the changes to the protective plate size and increase in RNS flow rate. The increase in credited area associated with the IRWST screens does not challenge the functions associated with the screens and sufficient margin still exists to conclude that the head loss testing demonstrating acceptability remains applicable. In addition, the staff finds that the protective plate continues to perform its design function (preventing coatings debris from reaching the containment recirculation screens), as the licensee’s revised debris settling analysis is conservative with respect to the testing detailed in

NUREG/CR-6916. Therefore, because the core cooling flow path will continue to perform as intended and accommodate the design flow rate without being obstructed, the staff finds that GDC 35 will be met with respect to debris head loss over the IRWST screens and coatings debris reaching the containment recirculation screens. As such, the staff finds the proposed amendment acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations in 10 CFR 50.91(b), the Georgia 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 (81 FR 66308, published on September 27, 2016). 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 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) presents special circumstances, (5) the special circumstances outweigh the potential decrease in safety due to reduced standardization, and (6) 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 in LAR 16-013 and evaluated in Section 3.2 of this SE.

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 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's regulations, and (3) there is reasonable assurance that 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. Summary of Staff's Audit, Debris Screen Dimension, dated December 14, 2016 (ADAMS Accession No. ML16309A538).

2. Request for License Amendment and Exemption 16-013: Debris Screen Related Dimensions, letter from Southern Nuclear Operating Company, dated August 11, 2016 (ADAMS Accession No. ML16224B122).

3. VEGP Updated Final Safety Analysis Report (UFSAR), Revision 5, dated June 17, 2016 (ADAMS Accession No. ML16174A103).

4. AP1000 Design Control Document, Revision 19, dated June 13, 2012 (ADAMS Accession No. ML11171A500).

5. VEGP FSER, dated August 5, 2011 (ADAMS Accession No. ML110450302 and ML111950510).

6. FSER Related to Certification of the AP1000 Standard Plant Design, NUREG-1793, Supplement 2, dated August 5, 2011 (ADAMS Accession No. ML112061231).