

SAFETY EVALUATION BY THE OFFICE OF NEW REACTORS  
RELATED TO EXEMPTION AND AMENDMENT NO. 61  
TO THE COMBINED LICENSE NOS. NFP-91 AND NFP-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 February 6, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15037A715), as supplemented by letter dated September 15, 2015 (ADAMS Accession No. ML15258A555), Southern Nuclear Operating Company, Inc. (SNC/licensee) requested that the U.S. Nuclear Regulatory Commission (NRC) amend the combined licenses (COLs) for Vogtle Electric Generating Station (VEGP) Units 3 and 4, COL numbers NPF-91 and NPF-92, respectively.

The license amendment request (LAR 15-003, or LAR) would add two additional hydrogen igniters to the in-containment refueling water storage tank (IRWST) roof vents. The proposed changes would also remove control of the hydrogen igniters from the protection and safety monitoring system (PMS), clarify the controls available for the hydrogen igniters at the remote shutdown workstation (RSW), and make changes to the design aspects of the hydrogen igniters to maintain consistency within various licensing documents. The requested changes would revise the VEGP Updated Final Safety Analysis Report (UFSAR) including the Tier 1 and Tier 2 information; the COL Appendix C, Inspections, Tests, Analyses and Acceptance Criteria (ITAAC); and the VEGP Technical Requirements Manual (TRM). Of the documents previously mentioned, only the VEGP TRM does not require prior approval of the NRC, and changes to the VEGP TRM are controlled under the VEGP change control program.

The licensee 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 Design Control Document (DCD).<sup>1</sup>

In order to modify the 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 the exemption request, as well as the LAR, is included in this safety evaluation.

The September 15, 2015, letter provided additional information that supplemented the LAR. This additional information did not expand the scope of the LAR and did not change the NRC staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on March 2, 2016 (81 FR 10920).

## 2.0 REGULATORY EVALUATION

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, or the technical specifications or requires a license amendment under Paragraphs B.5.b or B.5.c of this section.

As stated in 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.

According 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 the decrease in safety due to 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).

According to 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.

10 CFR 50.44, "Combustible Gas Control for Nuclear Power Reactors" requires, in relevant part, that the licensee demonstrate capability of the steel containment of existing plants and new plants to resist those loads associated with combustible gas generation from a metal-water reaction of the fuel cladding so that there is no loss of containment structural integrity.

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<sup>1</sup> While the licensee describes the requested exemption as being from Section III.B of 10 CFR Part 52, Appendix D, the entirety of the exemption pertains to proposed departures from Tier 1 information in the generic 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.

10 CFR 50.55a(h)(3), "Safety Systems" requires, in relevant part, that applications filed on or after May 13, 1999, for a COL comply with Institute of Electrical and Electronics Engineers (IEEE) Standard 603-1991, "IEEE Standard Criteria for Safety Systems for Nuclear Power Generating Stations," and the correction sheet dated January 30, 1995.

### 3.0 TECHNICAL EVALUATION

#### 3.1 EVALUATION OF EXEMPTION

Section III.B of Appendix D to 10 CFR Part 52 requires a licensee referencing Appendix D to 10 CFR Part 52 to incorporate by reference and comply with the requirements of Appendix D, including Tier 1 information contained in the generic AP1000 DCD. As defined in Section II of Appendix D to 10 CFR Part 52, Tier 1 information includes ITAAC and design descriptions, among other things. Therefore, a licensee referencing Appendix D incorporates by reference Tier 1 information contained in the generic DCD. The Tier 1 ITAAC and design descriptions, along with the plant-specific ITAAC, were included in Appendix C of the COL at its issuance.

The licensee requests changes to Tier 1 information by departing from the description of the containment hydrogen igniters in the plant-specific DCD. An 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 end result of this exemption would be that the licensee can implement modifications to Tier 1 information described and justified in LAR 15-003 if and only if the NRC approves LAR 15-003. This exemption is permanent and 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, 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 and 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, consider exemptions from the requirements of 10 CFR Part 52. As 10 CFR 52.7 further states, the Commission's consideration will be governed by 10 CFR 50.12, "Specific exemptions," which states that an exemption may be granted when: (1) the exemptions are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security; and (2) special circumstances are present. Specifically, 10 CFR 50.12(a)(2) lists 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 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 of the plant-specific DCD, specifically the information related to hydrogen igniters as described in LAR 15-003. This exemption is permanent and limited in scope to particular Tier 1 information. Subsequent changes to Tier 1 information related to hydrogen igniters, 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. The NRC staff has determined that granting of the licensee's proposed exemption will not result in a violation of the Atomic Energy Act of 1954, as amended, or the Commission's regulations because, 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. Therefore, as required by 10 CFR 50.12(a)(1), the staff finds that the exemption is authorized by law.

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

Appendix D to 10 CFR Part 52 requires that the licensee 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 proposed in the LAR will not impact any design function. There is no change to plant systems or the response of systems to postulated accident conditions. There is no change to the predicted radioactive releases due to postulated accident conditions. Furthermore, the plant response to previously evaluated accidents or external events is not adversely affected, and the change described does not create any new accident precursors. Therefore, as required by 10 CFR 50.12(a)(1), the staff finds that the exemption poses 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 elements of Tier 1 of the plant-specific DCD. This exemption is permanent and limited in scope to particular Tier 1 information. Subsequent changes to Tier 1 information related to hydrogen igniters, 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 proposed changes do not alter the design, function, or operation of any structures or 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 changes in Tier 1 of the plant-specific DCD change the information related to hydrogen igniters and maintain the design functions of the hydrogen ignition subsystems. These changes do not negatively impact safety or the ability of any structures, systems, or components to perform their functions. These changes will enable the licensee to safely construct and operate the AP1000 facility consistent with the design certified by the NRC by updating information related to hydrogen igniters in

Tier 1 of the plant-specific DCD. Therefore, because the application of the specified Tier 1 information 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 the information related to hydrogen igniters in Tier 1 of the plant-specific DCD, as proposed in the LAR 15-003. The design functions of the systems associated with this request will continue to be maintained. Therefore, the standardization inherent in the systems within scope of the certified design is not affected. Based on this, 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 Tier 1 documentation associated with the AP1000 design.

### 3.1.6 NO SIGNIFICANT REDUCTION IN SAFETY

This exemption would allow the implementation of changes to information related to hydrogen igniters in Tier 1 of the plant-specific DCD, as proposed in the LAR 15-003. The changes do not affect any safety-related equipment or function, and the design function of the hydrogen ignition subsystem continues to be met. Therefore, as required by Section VIII.A.4 of Appendix D to 10 CFR Part 52, 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

### 3.2.1 Addition of Two Hydrogen Igniters

In the certified AP1000 design, the hydrogen ignition subsystem presently consists of 64 hydrogen igniters strategically distributed throughout the containment. The number of hydrogen igniters and their locations are selected considering the behavior of hydrogen in the containment during severe accidents. The hydrogen igniter siting criteria are found in DCD Table 6.2.4-6, "Igniter Location." In order to control hydrogen releases within and out of the IRWST, igniters are installed inside and outside the IRWST, at or near the IRWST vent locations. After the AP1000 design was certified, Westinghouse Engineering Company (WEC) performed a design review and recommended adding two additional igniters above the IRWST vents, as close as practical to the vents, to better satisfy the certified siting criteria. In LAR 15-003, SNC requests to add two hydrogen igniters to the AP1000 design, to be located above the IRWST vents at VEGP Units 3 and 4. The number, location, and ITAAC of the hydrogen igniters are specified in the AP1000 DCD Tier 1, Chapter 2, Table 2.2.3-6, Table 2.3.9-2, and Table 2.3.9-3, respectively.

For the AP1000 certified design, the hydrogen combustion analysis to investigate the potential for deflagration to detonation transition (DDT) was evaluated using cell width methodology, relying in particular on the method of Sherman and Berman (NUREG/CR-4803, "The Possibility of Local Detonations During Degraded-Core Accidents in the Bellefonte Nuclear Power Plant," January 1987). This analysis methodology and associated results are described in DCD Tier 2, Section 19.41.

For the addition of the two new igniters near the IRWST vents, the staff was under the impression that WEC had reevaluated the potential for DDT in or near the IRWST. The staff

believed this revised combustion analysis used the cell width methodology as seen in the Organization for Economic Co-operation and Development (OECD) State-of-the-Art Report (SOAR) "Flame Acceleration and Deflagration-to-Detonation Transition in Nuclear Safety" (W. Breitung, C. Chan, S. B. Dorofeev, et al., NEA/CSNI/R(2000)7, August 2000) instead of the Sherman and Berman cell width methodology.

In order to verify the staff's understanding of the evaluation method, on August 17, 2015 (ADAMS Accession No. ML15229A468), the staff issued a request for additional information (RAI) requesting a comparison of the original analysis (licensing basis) with the new hydrogen combustion analysis results and identification of any differences with respect to local hydrogen concentration, local potential for DDT, credit for inerting, and assumptions related to reliance on hydrogen igniter performance.

In response to the RAI, by letter dated September 15, 2015 (ADAMS Accession No. ML15258A555), the licensee stated that the two additional hydrogen igniters proposed to be added in the upper compartment outside the IRWST vents were located solely on the basis of the igniter placement criteria that are outlined in DCD Table 6.2.4-6. The licensee stated that the need for the hydrogen igniters was identified during a design review, not by a failure observed in any DDT analyses that had been performed previously or since. In addition, the licensee stated that there are no analyses that support specific hydrogen igniter placement other than demonstrating that the design siting criteria are met. SNC stated that the methodology and analysis presented in DCD Tier 2, Section 19.41 remain unchanged by the proposed addition of two hydrogen igniters above the IRWST vents. SNC also stated that the DDT analysis performed using the OECD SOAR methodology identified above was not utilized to support LAR 15-003 and is not requested to be reviewed in conjunction with the licensing basis at this time. The DDT analysis using the OECD SOAR methodology was performed in support of the ongoing update of the probabilistic risk assessment (PRA) as documented in APP-PRA-GSC-402, "AP1000 Evaluation of DDT Potential," Revision 0. This updated DDT analysis includes the new hydrogen igniters proposed in LAR 15-003. However, the analysis was performed with the MAAP4 code and the fidelity of the lumped parameter modeling of the upper compartment control volume does not distinguish the new hydrogen igniters from the existing hydrogen igniters that were already located above the IRWST vents. This updated analysis is not utilized to support or justify the proposed hydrogen igniter placement because the staff is able to base its conclusions on the original analysis and methodology supporting the certified design.

For the certified design, the staff found that the combustible gas control system, with the 64 hydrogen igniters, met the requirements of 10 CFR 50.44, as described in NUREG-1793, "Final Safety Evaluation Report Related to Certification of the AP 1000 Standard Design." Section 6.2.5. This staff conclusion was based on the hydrogen combustion analysis using the Sherman and Berman cell width methodology. Because the licensing basis of the combustible gas control design has not changed with the proposed addition of the two new hydrogen igniters and the analysis and methodology supporting the certified design were and continue to be found acceptable, the addition of two more hydrogen igniters above the IRWST vents is found to be more conservative and therefore acceptable.

### 3.2.2 Hydrogen Igniter Control

As described in Section 7.1.1 of the UFSAR, "The AP1000 Instrumentation and Control Architecture," the PMS controls safety-related components and initiates reactor trip and actuation of engineered safety features in response to plant conditions. In COL Appendix C and

related plant-specific Tier 1, Table 2.5.2-5, "Minimum Inventory of Displays, Alerts, and Fixed Position Controls in the MCR [Main Control Room]," the nonsafety-related hydrogen igniters are listed as having the PMS provide manual fixed position control in the MCR. The licensee proposed to delete this manual control of hydrogen igniters from the PMS in the MCR. The manual control of containment hydrogen igniters is not safety-related. The hydrogen igniter signals are not processed through the PMS and their fixed position controls are not provided in the PMS. In addition, the nonsafety-related manual control function of hydrogen igniters does not interface with any safety function in the PMS. Therefore, the staff finds that the proposed elimination of the manual control of hydrogen igniters from the PMS is acceptable.

The nonsafety-related plant control system in the certified AP1000 standard design provides manual component soft level controls, which is described in Section 7.1.3.3 of the UFSAR, "Operator Controls and Indication," for nonsafety-related components, including the hydrogen igniters at workstations in the MCR and the remote shutdown room. In Section 7.1.3.3 of the UFSAR, the plant control operator interface is a set of soft control devices that replace conventional switch/light or potentiometer/meter assemblies used for operator interface with control systems. The licensee proposed to add one clarification note to Tier 1, Table 2.5.4-1, "Minimum Inventory of Controls, Displays, and Alert at the RSW," for the manual containment hydrogen igniter that defines the hydrogen igniter control as soft control. This proposed change does not have any impact on the plant safety functions. The added clarifying note is also consistent with the description in the UFSAR for the manual component soft level controls for nonsafety-related components. Therefore, the staff finds that the additional clarification note proposed by licensee is acceptable.

### 3.2.3 Plant-Specific Tier 1 Consistency Related Changes

The minimum surface temperature of hydrogen igniters is stated as "exceeding 1700 Degree F" in COL Appendix C and associated Plant-specific Tier 1 Table 2.3.9-3, Inspection, Tests, and Acceptance Criteria. However, this value is not consistent throughout the UFSAR. The proposed changes will make the surface temperature value consistent in all documents including the TRM. The minimum surface temperature is specified to be equal to or greater than 1700 Degree F. This clarification is acceptable to the staff.

The locations of hydrogen igniters are shown in COL Appendix C and associated plant-specific Tier 1 Table 2.3.9-2 and on Tier 2 figures. However, the room location for hydrogen igniter APP-VLS-EH-30 (Igniter 30) is not consistent in all documents. The UFSAR Figure 6.2.4-9 location has been verified as the correct location by the licensee. The proposed changes will make the location of Igniter 30 consistent in all documents. This correction is acceptable to the staff.

### SUMMARY

The staff has reviewed the proposed changes submitted in LAR 15-003 that would add two new hydrogen igniters. Because the two additional hydrogen igniters comply with the certified igniter siting criteria, their addition is acceptable to the staff.

The hydrogen igniter signals are not processed through the PMS and their fixed position controls are not provided in PMS. In addition, the nonsafety-related manual control function of hydrogen igniters does not interface with any safety function in the PMS. Therefore, the staff

finds that the proposed elimination of the manual control of hydrogen igniters from the PMS is acceptable. In addition, the plant-specific consistency related changes and addition of clarification note in Tier 1, Table 2.5.4-1, are acceptable to the staff.

#### 4.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION

The NRC staff's proposed No Significant Hazards Consideration determination was published in the *Federal Register* (FR) on March 2, 2016 (10 CFR 81.10920). A request for a hearing was filed on May 2, 2016, by the Blue Ridge Environmental Defense League ("BREDL") and its chapter, Concerned Citizens of Shell Bluff (ADAMS Accession No. ML16124B062). The Atomic Safety and Licensing Board (ASLB) denied BREDL's request for hearing in an order dated September 16, 2016 (ADAMS Accession No. ML16259A157). Subsequently, on October 11, 2016, BREDL appealed the ASLB decision (ADAMS Accession No. ML16285A548). The appeal is currently before the Commission.

Under its regulations, the Commission may issue and make an amendment immediately effective, notwithstanding the pendency before it of a request for a hearing from any person, in advance of the holding and completion of any required hearing, where it has made a final determination that no significant hazards consideration is involved.

The NRC's regulations in 10 CFR. Section 50.92 state that the Commission may make a final determination that a license amendment involves no significant hazards consideration if operation of the facility, in accordance with the amendment, would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated, (2) create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) involve a significant reduction in a margin of safety.

As required by 10 CFR. Section 50.91(a), in its letter dated February 6, 2015, the licensee provided its analysis of the issue of no significant hazards consideration. Likewise, the staff provides its final no significant hazards consideration below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed addition of hydrogen igniters and clarifying changes to the hydrogen ignition subsystem does not affect any safety-related equipment or function. The hydrogen ignition subsystem is designed to mitigate beyond design basis hydrogen generation in the containment. The hydrogen ignition subsystem changes do not involve any accident, initiating event or component failure; thus, the probabilities of the accidents previously evaluated are not affected. The modified system will maintain its designed and analyzed beyond design basis function to maintain containment integrity. The changes do not affect the maximum allowable leakage rate specified in the Technical Specifications, and radiological material release source terms are not affected; thus, the radiological releases in the accident analyses are not affected.

Therefore, the proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.



2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed addition of hydrogen igniters and clarifying changes to the hydrogen ignition subsystem will maintain the beyond design basis function of the hydrogen ignition subsystem. The hydrogen igniter subsystem changes do not negatively impact its function to maintain containment integrity during beyond design basis accident conditions. Also, two additional igniters comply with the certified igniter siting criteria and, do not introduce any new failure mode. The proposed changes do not create a new fault or sequence of events that could result in a radioactive release. The proposed changes would not affect any safety-related accident mitigating function.

Therefore, the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

The proposed addition of hydrogen igniters and clarifying changes to the hydrogen ignition subsystem will maintain the beyond design basis function of the hydrogen ignition subsystem. The proposed changes do not have any effect on the ability of safety-related structures, systems, or components to perform their design basis functions. The proposed changes do not negatively affect the ability of the hydrogen igniter subsystem to maintain containment integrity following a beyond design basis accident. The hydrogen igniter subsystem continues to meet the requirements for which it was designed, and continues to comply with the regulations.

No safety analysis or design basis acceptance limit/criterion is challenged or exceeded by the proposed changes, thus no margin of safety is reduced.

Therefore, the proposed amendment does not involve a significant reduction in a margin of safety.

For the reasons set forth above, the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff has made a final determination that the license amendment request involves no significant hazard considerations.

## 5.0 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.

## 6.0 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 the discussion in Section 4.0 of this safety evaluation continues to support that finding. Additionally, there has been no public comment on such finding as published in the *Federal Register* on March 2, 2016 (81 FR 10920). 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) 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.

The Commission has concluded, based on the considerations discussed in Section 3.2 of this safety evaluation and staff's confirmation that these changes do not change an analysis methodology, assumptions, or the design itself, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public. Therefore, the staff finds the changes proposed in this license amendment acceptable.

## 7.0 REFERENCES

1. Request for License Amendment and Exemption 15-003: Containment Hydrogen Igniter Changes, letter from SNC, dated February 6, 2015 (ADAMS Accession No. ML15037A715).
2. Response to Request for Additional Information, Request for License Amendment and Exemption 15-003, Containment Hydrogen Igniter Changes, letter from SNC, dated September 15, 2015 (ADAMS Accession No. ML15258A555).
3. Vogtle Electric Generating Plant Updated Final Safety Analysis Report, Revision 3, dated June 26, 2015 (ADAMS Accession No. ML15194A443).
4. AP1000 Design Control Document, Revision 19, dated June 13, 2011 (ADAMS Accession No. ML11171A500).

5. Vogtle Electric Generating Plant, Final Safety Evaluation Report dated August 5, 2011 (ADAMS Accession No. ML111950510 – letter, ADAMS Accession No. ML110450302 – final safety evaluation report).
6. 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).