

SAFETY EVALUATION BY THE OFFICE OF NEW REACTORS  
RELATED TO AMENDMENT NOS. 97 AND 96  
TO THE COMBINED LICENSE NOS. NPF-91 AND NPF-92, RESPECTIVELY  
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 March 15, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17074A597), Southern Nuclear Operating Company (SNC) submitted license amendment request (LAR) 17-008 requesting U.S. Nuclear Regulatory Commission (NRC) approval for amendments to the combined licenses (COL) for Vogtle Electric Generating Plant (VEGP), Units 3 and 4, COL Numbers NPF-91 and NPF-92, respectively, regarding Clarification of Raceway and Raceway System Designations.

The requested amendment proposes departures from approved AP1000 Design Control Document (DCD) Tier 2 information (text and tables) as incorporated into the Updated Final Safety Analysis Report (UFSAR) as plant-specific DCD information, and also proposes to depart from involved plant-specific Tier 1 information and corresponding COL Appendix C. The proposed departures consist of changes to plant-specific Tier 1 information and corresponding COL Appendix C in regard to raceways that are designated with an electrical classification. This includes proposed changes to inspections, tests, analyses, and acceptance criteria (ITAAC) and UFSAR information in various locations. The proposed changes consist of the following:

- 1) Revising licensing basis text in plant-specific Tier 1 information and corresponding COL Appendix C and UFSAR Tier 2 that refers to raceways with an electrical classification,

- 2) Revising licensing basis text in plant-specific Tier 1 information and corresponding COL Appendix C to change the reference from fiber optic cables to communication cables, and
- 3) Revising plant-specific Tier 1 information and corresponding COL Appendix C ITAAC acceptance criteria to remove ambiguity as to the location of inspected electrical cables.

Pursuant to the provisions of 10 CFR 52.63(b)(1), SNC 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." This exemption request allows a departure from the corresponding portions of the certified information in Tier 1 of the generic AP1000 DCD.<sup>1</sup>

## 2.0 REGULATORY EVALUATION

### 2.1 PROPOSED LICENSING BASIS CHANGES

The proposed changes in the LAR and exemption request are discussed below.

Change 1: Revisions to UFSAR Tier 2, as well as plant-specific Tier 1 information and corresponding COL Appendix C to licensing basis text are such that references to a Class 1E or non-Class 1E raceway is reworded so that the text no longer refers to the raceway itself with these electrical classifications. The revisions clarify that only the circuits routed in the raceways are Class 1E or non-Class 1E.

Change 2: Plant-specific Tier 1 information and corresponding COL Appendix C is revised to refer to communication cables instead of fiber-optic cables.

Change 3: Plant-specific Tier 1 information and corresponding COL Appendix C is reworded to minimize ambiguity as to the location of the electrical cables to be inspected in each ITAAC and to clarify that electrical cables to be inspected are located in the referenced plant area (i.e., inside containment, in the non-radiologically controlled area of the auxiliary building, or in the radiologically controlled area of the auxiliary building).

### 2.2 RACEWAY SYSTEMS DESCRIPTION

As stated in UFSAR Subsections 8.3.1.3.1 and 8.3.2.4.2, a raceway system is the complete assembly of the raceway (e.g., conduit, cable tray, or wireway) and the raceway supports. They are used within the AP1000 main alternating current (ac) and direct current (dc) power systems and the various instrumentation and control (I&C) systems. This includes safety-related and nonsafety-related systems, such as the Class 1E dc and uninterruptible power supply system (IDS), the protection and safety monitoring system (PMS), and the plant control system (PLS). The raceway systems are designed to protect circuits from seismic events and fire propagation, and play a role in the physical separation between circuits.

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<sup>1</sup> While SNC 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.

Raceway systems that route Class 1E circuits are designed to mechanical equipment classification Class C and seismic Category I requirements to prevent failure during a seismic event.

### 2.3 APPLICABLE REGULATORY REQUIREMENTS

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 the design change will result in a significant decrease in the level of plant safety otherwise provided by the design.

10 CFR Part 52, Appendix D, Section VIII.B.5.a allows an applicant or licensee who references this appendix to depart from Tier 2 information, without prior NRC approval, unless the proposed departure involves a change to or departure from Tier 1 information, Tier 2\* information, or the Technical Specifications, or requires a license amendment under paragraphs B.5.b or B.5.c of the section of 10 CFR Part 52, Appendix D, Section VIII. When evaluating the proposed departure, an applicant or licensee shall consider all matters described in the plant-specific DCD.

10 CFR 52.63(b)(1) allows the licensee 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 complies 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 potential decrease in safety due to reduced standardization. Therefore, any exemption from Tier 1 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 is a proposed amendment to the license.

10 CFR Part 50, Appendix A, General Design Criterion (GDC) 2, "Design bases for protection against natural phenomena" states that structures, systems, and components (SSCs) important to safety shall be designed to withstand the effects of natural phenomena such as earthquakes, tornadoes, hurricanes, floods, tsunamis, and seiches without loss of capability to perform their safety functions. The design bases for these SSCs shall reflect: (1) appropriate consideration of the most severe of the natural phenomena that have been historically reported for the site and surrounding area, with sufficient margin for the limited accuracy, quantity, and period of time in which the historical data have been accumulated, (2) appropriate combinations of the effects of normal and accident conditions with the effects of the natural phenomena and (3) the importance of the safety functions to be performed.

GDC 22, "Protection system independence" states that the protection system shall be designed to assure that the effects of natural phenomena, and of normal operating, maintenance, testing, and postulated accident conditions on redundant channels do not result in loss of the protection function, or shall be demonstrated to be acceptable on some other defined basis. Design techniques, such as functional diversity or diversity in component design and principles of operation, shall be used to the extent practical to prevent loss of the protection function.

GDC 24, "Separation of protection and control systems" states that the protection system shall be separated from control systems to the extent that failure of any single control system component or channel, or failure or removal from service of any single protection system component or channel which is common to the control and protection systems leaves intact a

system satisfying all reliability, redundancy, and independence requirements of the protection system. Interconnection of the protection and control systems shall be limited so as to assure that safety is not significantly impaired.

### 3.0 TECHNICAL EVALUATION

#### 3.1 EVALUATION OF EXEMPTION

The Tier 1 information for which a plant-specific departure and exemption was requested includes corresponding changes to COL Appendix C information. The result of this exemption would be that SNC could implement modifications to Tier 1 information described and justified in LAR 17-008 if, and only if, the NRC approves LAR 17-008. This exemption is a permanent exemption limited in scope to the particular Tier 1 information specified.

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

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

##### 3.1.1 AUTHORIZED BY LAW

This exemption would allow SNC to implement a revision to Tier 1 information to 1) revise Tier 1 Section 3.3 and ITAAC in Tier 1 Table 3.3-6 to clarify text referring to raceways with an electrical classification (i.e., Class 1E / non-Class 1E), 2) revise text referring to "fiber optic cables" in plant-specific Tier 1 Section 3.3 as "communication cables" in order to maintain consistency with associated ITAAC in this section, and 3) clarify items 7.a)a), 7.a)b), and 7.a)c) acceptance criteria to minimize ambiguity as to the location of the inspected electrical cables in the plant-specific DCD Tier 1. This exemption is a permanent exemption limited in scope to particular Tier 1 information. Subsequent changes to this plant-specific Tier 1 information, and corresponding changes to Appendix C, or any other Tier 1 information would be subject to the exemption process specified in Section VIII.A.4 of Appendix D to 10 CFR Part 52 and the

requirements of 10 CFR 52.63(b)(1). As stated above, 10 CFR Part 52, Appendix D, Section VIII.A.4 allows the NRC to grant exemptions from one or more elements of the Tier 1 information. Based on 10 CFR Part 52, Appendix D, Section VIII.A.4, the NRC staff has determined that granting of SNC'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 a licensee will construct and operate the plant based on the approved information found in the DCD incorporated by reference into a licensee's licensing basis. The changes proposed continue to reflect the approved licensing basis for VEGP Units 3 and 4, and will maintain a consistent level of detail with that which is currently provided elsewhere in Tier 1 of the DCD. The changes proposed by SNC 1) revise Tier 1 Section 3.3 and ITAAC in Tier 1 Table 3.3-6 to clarify text referring to raceways with an electrical classification (i.e., Class 1E / non-Class 1E), 2) revise text referring to "fiber optic cables" in plant-specific Tier 1 Section 3.3 as "communication cables" in order to maintain consistency with associated ITAAC in this section, and 3) clarify items 7.a)a), 7.a)b), and 7.a)c) acceptance criteria to minimize ambiguity as to the location of the inspected electrical cables in the plant-specific DCD Tier 1 does not represent any adverse impact to the design function of the annex building or the SSCs contained in the rooms and will continue to protect the health and safety of the public in the same manner. There is no change to the application of regulatory guides or industry standards to raceways or raceway systems, nor is there a change to how they are designed, fabricated, procured or installed. Raceway systems that route Class 1E circuits will continue to be designed and designated as equipment Class C, safety-related, and seismic Category I. The intent of the ITAAC is not impacted, nor is the ITAAC scope or closure method. Because they will not alter the operation of any plant equipment or systems, these changes do not present an undue risk from existing equipment or systems. These changes do not add any new equipment or system interfaces to the current plant design. 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

The proposed exemption would allow changes to elements of the plant-specific DCD Tier 1, thereby departing from the AP1000 certified (Tier 1) design information. This proposed exemption would be a permanent exemption limited in scope to particular Tier 1 information and corresponding changes to Appendix C. Subsequent changes to this plant-specific Tier 1 information and corresponding changes to Appendix C 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 SSCs associated with the facility's physical or cyber security and, therefore, does not affect any plant equipment that is necessary to maintain a safe and secure plant status. In addition, the changes have no impact on plant security or safeguards. Therefore, as required by 10 CFR 50.12(a)(1), the staff finds that the exemption is consistent with the common defense and security.

### 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 a licensee will safely construct and operate a plant based on the certified information found in the AP1000 DCD, which was incorporated by reference into the VEGP Units 3 and 4 licensing basis. The proposed change would revise plant-specific Tier 1 information to 1) revise Tier 1 Section 3.3 and ITAAC in Tier 1 Table 3.3-6 to clarify text referring to raceways with an electrical classification (i.e., Class 1E / non-Class 1E), 2) revise text referring to “fiber optic cables” in plant-specific Tier 1 Section 3.3 as “communication cables” in order to maintain consistency with associated ITAAC in this section, and 3) clarify items 7.a)a), 7.a)b), and 7.a)c) acceptance criteria to minimize ambiguity as to the location of the inspected electrical cables in the plant-specific DCD Tier 1. All of the proposed changes are for clarification and consistency. There are no physical changes proposed to the plant by this activity. The proposed changes maintain the intent of the associated ITAAC.

Special circumstances are present in the particular circumstances discussed in LAR 17-008 because the application of the specified Tier 1 information is not necessary to achieve the underlying purpose of the rule. The proposed changes are for clarification and consistency to ensure successful ITAAC closure. The proposed changes do not affect any function or feature used for the prevention and mitigation of accidents or their safety analyses, and no safety-related SSC or function is involved. This exemption request and associated revisions to the Tier 1 information and corresponding changes to Appendix C demonstrate that the applicable regulatory requirements will continue to be met. Therefore, 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 Tier 1 information in the plant-specific DCD and corresponding changes to Appendix C that are being proposed in the LAR. The justification provided in LAR 17-008, the exemption request, and the associated licensing basis mark-ups demonstrate that there is a limited change from the standard information provided in the generic AP1000 DCD, and that information is unnecessary to achieve the underlying purpose of the rule. No SSC design function is affected by the proposed changes and the intent of the ITAAC associated with this request will continue to be maintained. The proposed changes are for clarification and consistency to ensure successful ITAAC closure. These benefits, including benefits to the public health and safety to ensure that the ITAAC are fully completed, outweigh any potential decrease in safety that may result from the reduction in standardization caused by the exemption. Consequently, the safety impact that may result from any reduction in standardization is minimized, because the proposed design change does not result in a reduction in the level of safety. Based on the foregoing reasons, as required by 10 CFR Part 52.63(b)(1), the staff finds that the special circumstances outweigh the effects the departure has on the standardization of the AP1000 design.

### 3.1.6 NO SIGNIFICANT REDUCTION IN SAFETY

This exemption would allow the implementation of changes to Tier 1 information in the plant-specific DCD and corresponding changes to Appendix C that are being proposed in the LAR. The exemption request proposes to 1) revise Tier 1 Section 3.3 and ITAAC in Tier 1 Table 3.3-6 to clarify text referring to raceways with an electrical classification (i.e., Class 1E / non-Class 1E), 2) revise text referring to “fiber optic cables” in plant-specific Tier 1 Section 3.3 as “communication cables” in order to maintain consistency with associated ITAAC in this section, and 3) clarify items 7.a)a), 7.a)b), and 7.a)c) acceptance criteria to minimize ambiguity as to the location of the inspected electrical cables in the plant-specific DCD Tier 1. Since no SSC design function will be affected by the proposed changes and the intent of the ITAAC associated with this request will continue to be maintained, there is no reduction in the level of safety. Therefore, based on the foregoing reasons and as required by 10 CFR Part 52, Appendix D, Section VIII.A.4, the staff finds that granting the exemption would not result in a significant decrease in the level of safety otherwise provided by the design.

### 3.2 TECHNICAL EVALUATION OF PROPOSED CHANGES

The NRC staff performed a technical evaluation of SNC’s proposed changes as discussed below.

The staff has reviewed Institute of Electrical and Electronic Engineers (IEEE) Standard (Std.) 384-1981, “IEEE Standard Criteria for Independence of Class 1E Equipment and Circuits,” and IEEE Std. 344-1987, “Recommended Practice for Seismic Qualification of Class 1E Equipment for Nuclear Power Generating Stations,” for definitions of raceways and seismic category structures. IEEE Std. 384-1981 defines raceway as any channel that is designed and used expressly for supporting or enclosing wires, cable, or bus bars. Raceways consist primarily of, but are not restricted to, cable trays and conduits. IEEE Std. 344-1987 defines Seismic Category I equipment as safety-related equipment to withstand the effects of the safe shutdown earthquake and maintain the specified design function and structural integrity.

#### Change 1:

- Plant-specific Tier 1 Section 3.3, item 7.a) and COL Appendix C Section 3.3, item 7.a) are reworded to clarify that the raceways themselves are not Class 1E, but rather state that the raceways route Class 1E cables.
- Plant-specific Tier 1 Table 3.3-6, item 7.a) and COL Appendix C ITAAC Nos. 3.3.00.07aa, 3.3.00.07ab, 3.3.00.07ac Design Commitment (DC) and Inspections, Tests, Analyses (ITA) are reworded to clarify that the raceways referred to in the ITAAC are not Class 1E, but route Class 1E cables.
- Plant-specific Tier 1 Table 3.3-6, item 7.b) and COL Appendix C ITAAC Nos. 3.3.00.07ba, 3.3.00.07bb, 3.3.00.07bc ITA are reworded to clarify that the raceways referred to in the ITAAC are not Class 1E, but route Class 1E cables.
- Plant-specific Tier 1 Table 3.3-6, item 7.c)(i) and COL Appendix C ITAAC Nos. 3.3.00.07c.i.a, 3.3.00.07c.i.b ITA are reworded to clarify that the raceways referred to in the ITAAC are not Class 1E, but route Class 1E cables.

- Plant-specific Tier 1 Table 3.3-6, item 7.d) and COL Appendix C ITAAC Nos. 3.3.00.07d.i, 3.3.00.07d.ii.a, 3.3.00.07d.ii.b, 3.3.00.07d.ii.c, 3.3.00.07d.iii.a, 3.3.00.07d.iii.b, 3.3.00.07d.iii.c, 3.3.00.07d.iv.a, 3.3.00.07d.iv.b, 3.3.00.07d.iv.c, 3.3.00.07d.v.a, 3.3.00.07d.v.b, 3.3.00.07d.v.c ITA and Acceptance Criteria (AC) are reworded to clarify that the raceways referred to in the ITAAC are not Class 1E, but route Class 1E cables.
- UFSAR Subsection 8.1.4.2.1 is reworded to clarify that the raceways referred to are not Class 1E, but route Class 1E cables.
- UFSAR Subsection 8.3.1.3.4 is reworded to clarify that the raceways referred to are not Class 1E, but route Class 1E cables.
- UFSAR Table 9A-2 is reworded to clarify that the cable trays referred to are not Class 1E, but route Class 1E cables.

UFSAR Section 8.3.2.4.2 states, in part, as follows:

Cables of one separation group are run in separate raceway and physically separated from cables of other separation groups. Group N (nonsafety-related circuits) raceways are separated from safety-related groups A, B, C and D (safety-related circuits). Raceways from Group N are routed in the same areas as the safety-related groups according to spatial separation stipulated in Regulatory Guide 1.75 and IEEE 384 with a few exceptions...

Non-Class 1E circuits are electrically isolated from Class 1E circuits, and Class 1E circuits from different separation groups are electrically isolated by isolation devices, shielding and wiring techniques, physical separation (in accordance with Regulatory Guide 1.75 for circuits in raceways), or an appropriate combination thereof.

LAR 17-008, Enclosure 1 states in Section 3, "Technical Evaluation," that there is no change to the application of regulatory guides or industry standards to raceways or raceway systems, nor is there a change to how they are designed, fabricated, procured or installed. Raceway systems that route Class 1E circuits will continue to be designated as Seismic Category I. The nonsafety-related cables (N group) shall be routed in Seismic Category II qualified cable raceway systems.

Appendix C of COLs NPF-91 and NPF-92 contain information that SNC is proposing to modify and, therefore, in accordance with 10 CFR 52.98(f), the proposed changes require a license amendment. This activity involves a change to plant-specific Tier 1 information and corresponding COL Appendix C, and require a license amendment as per 10 CFR 52, Appendix D, Section VIII.B.5.a.

NRC staff concludes that the revised plant-specific Tier 1 and COL Appendix C text clarifies that only the circuits routed through raceways are referred to as Class 1E or non-Class 1E. The staff further finds that the revisions clarify that raceways and raceways systems are not designated as "Class 1E" and "non-Class 1E" but instead are referring to Seismic Category I raceways and Seismic Category II raceways, which are designed for routing safety-related/Class 1E cables and non-safety related/non-Class 1E cables, respectively. The staff

determined that no SSC function is affected by these changes. In addition, there is no change to the application of regulatory guides (RG 1.75) or industry standards (IEEE Std. 384 and IEEE Std. 344) to raceways or raceway systems, nor is there a change to how they are designed, fabricated, procured or installed. No SSC function is changed by this LAR. Since the raceway systems that continue to carry Class 1E circuits are classified as Seismic Category I, SNC continues to meet GDCs 2 and 22.

The proposed changes to the ITAAC and UFSAR information are for clarification only and to correct the text in the UFSAR. Since the proposed changes are for clarification only, the staff concludes that the revising licensing basis text in plant-specific Tier 1 and corresponding COL Appendix C as well as UFSAR Tier 2 is acceptable.

#### Change 2:

Plant-specific Tier 1 Section 3.3, item 7.a) and COL Appendix C Section 3.3, item 7.a) are revised to refer to communication cables instead of fiber-optic cables.

Plant-specific Tier 1 Section 3.3, item 7.a) and COL Appendix C Section 3.3, item 7.a) refer to "fiber-optic cables associated with only one division." However, the corresponding COL Appendix C, Table 3.3-6, ITAAC Nos. 3.3.00.07aa, 3.3.00.07ab, and 3.3.00.07ac refer to "communication cables associated with only one division." For consistency, plant-specific Tier 1 Section 3.3, item 7.a) and COL Appendix C Section 3.3, item 7.a) are revised to match the associated ITAAC in COL Appendix C. Specifically, the reference to fiber optic cables is revised to communication cables. The fiber optic cables referred to in plant-specific Tier 1 Section 3.3, item 7.a) and COL Appendix C Section 3.3, item 7.a) are communication cables, so the wording and intent of the corresponding ITAAC is unchanged.

The staff finds the proposed licensing basis text in plant-specific Tier 1 Section 3.3, item 7.a) and COL Appendix C Section 3.3, item 7.a) to change the reference from fiber optic cables to communication cables acceptable because the change provides consistency.

#### Change 3:

Plant-specific Tier 1 Table 3.3-6, item 7.a) and COL Appendix C ITAAC Nos. 3.3.00.07aa is reworded to clarify that the electrical cables to be inspected are located inside containment. Plant-specific Tier 1 Table 3.3-6, item 7.a) and COL Appendix C ITAAC Nos. 3.3.00.07ab is reworded to clarify that the electrical cables to be inspected are located inside the non-radiologically controlled area of the auxiliary building. Plant-specific Tier 1 Table 3.3-6, item 7.a) and COL Appendix C ITAAC Nos. 3.3.00.07ac is reworded to clarify that the electrical cables to be inspected are located inside the radiologically controlled area.

The purpose of ITAACs is to verify that the electrical cables, the communication cables associated with only one division, and the raceways that route them in various plant locations are identified by the appropriate color code. A different plant area is inspected within each ITAAC. The intent of the ITAAC is not impacted, nor is the ITAAC scope or closure method. Rewording the ITAAC acceptance criteria provides clarity to the scope of each ITAAC and reduces any potential misinterpretation.

The staff concluded that the proposed text for plant-specific Tier 1 Table 3.3-6, item 7.a) and COL Appendix C Table 3.3 6, ITAAC Nos. 3.3.00.07aa, 3.3.00.07ab, and 3.3.00.07ac

acceptance criteria are acceptable because the proposed change is only to clarify the location of electrical cables to be inspected.

#### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations 10 CFR 50.91(b)(2), on October 20, 2017, 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." 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 (*Federal Register* Notice, 82 FR 19104, dated April 25, 2017). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with issuing the amendment.

Because the exemption is necessary to allow the changes proposed in this LAR, and because the exemption does not authorize any activities other than those proposed in this LAR, 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), the NRC staff finds that no environmental impact statement nor 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 proposed in this LAR (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 result in a significant decrease in the level of safety otherwise provided by the design. Therefore, the NRC staff grants the exemption from the Tier 1 information requested by SNC.

The staff has reviewed SNC's proposed changes regarding the clarification of raceway and raceway system designations. Based on the evaluation discussed above, the staff concludes that the proposed changes do not affect any function or feature used for the prevention and mitigation of accidents or their safety analyses. The proposed changes neither involve nor interface with any SSC accident initiator or initiating sequence of events related to the accidents evaluated in the VEGP Units 3 and 4 UFSAR. The staff also concludes that the proposed changes do not impact SNC's continued compliance with GDCs 2, 22, and 24. Raceway systems that carry Class 1E circuits are still classified as equipment Class C and Seismic Category I in accordance with GDC 2. The proposed change does not impact the Protection System Independence and therefore, GDC 22 is still met. No separation distance between

circuits is changed, nor is any change made that impacts the independence of the protection and safety monitoring system. The scope, intent, and closure method of the associated ITAAC are unchanged. Therefore, GDC 24 is still met.

The staff has also concluded, based on the technical evaluation presented in Section 3.2 above, that the changes to raceways that are designated with an electrical classification do not change any analysis methodology, assumptions, or the design itself, and that there is reasonable assurance that: (1) the health and safety of the public will not be endangered by construction and 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 proposed changes acceptable and consistent with the NRC regulations.

## 7.0 REFERENCES

1. VEGP Units 3 and 4 LAR 17-008, Request for License Amendment and Exemption: Clarification of Raceway and Raceway System Designations dated March 15, 2017 (ADAMS Accession No. ML17074A597).
2. VEGP Units 3 and 4 Updated Final Safety Analysis Report (UFSAR), Revision 6, dated March 12, 2017 (ADAMS Accession No. ML17172A218).
4. AP1000 Design Control Document, Revision 19, dated June 13, 2011 (ADAMS Accession No. ML11171A500).
5. Combined License NPF-91 for VEGP Unit 3, Southern Nuclear Operating Company (ADAMS Accession No. ML14100A106).
6. Combined License NPF-92 for VEGP Unit 4, Southern Nuclear Operating Company (ADAMS Accession No. ML14100A135).
7. IEEE Std. 384-1981, "IEEE Standard Criteria for Independence of Class 1E Equipment and Circuits".
8. IEEE Std. 344-1987, "Recommended Practice for Seismic Qualification of Class 1E Equipment for Nuclear Power Generating Stations".