



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 187

TO COMBINED LICENSE NO. 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 UNIT 4

DOCKET NO. 52-026

1.0 INTRODUCTION

By letter dated September 2, 2022 (Agencywide Documents Access and Management System Accession No. ML22245A122), Southern Nuclear Operating Company, Inc. (SNC or the licensee) requested that the U.S. Nuclear Regulatory Commission (NRC) amend the Vogtle Electric Generating Plant (VEGP) Unit 4, Combined License (COL) No. NPF-92. License Amendment Request (LAR) 22-003, "Electrical Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Optimization," proposed two types of changes: The first type of change would delete 14 "assigned division" ITAAC that verify Class 1E equipment are powered by their respective division because they are duplicative of other ITAAC. The second type of change would consolidate 18 electrical, cable, raceway color code, and separation ITAAC into three other existing ITAAC. These changes would be incorporated into Appendix C of the COL and the plant-specific design control document (PS-DCD).

SNC requested an exemption from the provisions of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52, Appendix D, "Design Certification Rule for the AP1000 Design," Section III.B, "Scope and Contents."<sup>1</sup> The requested exemption would allow a departure from the

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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 plant-specific DCD. In the remainder of this evaluation, the NRC will refer to the exemption as an

corresponding portions of Tier 1 of the PS-DCD. In order to modify the PS-DCD Tier 1 information, the NRC must find SNC's exemption request included in its submittal for the LAR to be acceptable. The staff's review of the exemption request, as well as the LAR, is included in this safety evaluation.

## 2.0 REGULATORY EVALUATION

The staff considered the following regulatory requirements in reviewing the LAR:

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) "Finality of combined licenses; information requests." Section VIII.A.4 also states that the Commission will deny a requested 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.

Section 52.63(b)(1) of 10 CFR 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 grant such a request only if it determines that the exemption will comply with the requirements of 10 CFR 52.7 "Specific exemptions," which, in turn, points to the requirements listed in 10 CFR 50.12 for specific exemptions. In addition to the factors listed in 10 CFR 52.7, the Commission shall consider whether the special circumstances 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, 10 CFR 52.7, and 10 CFR 52.63(b)(1).

Section 52.98(f) of 10 CFR provides that any modification to, addition to, or deletion from the terms and conditions of a COL is a proposed license amendment. These activities involve a change to COL Appendix C ITAAC information, with corresponding changes to the associated PS-DCD Tier 1 information. Therefore, NRC approval in the form of a license amendment is required prior to making these plant-specific proposed changes.

Section 52.97(b) of 10 CFR, "Issuance of combined licenses," requires the NRC to "identify within the combined license the inspections, tests, and analyses, including those applicable to emergency planning, that the licensee shall perform, and the acceptance criteria that, if met, are necessary and sufficient to provide reasonable assurance that the facility has been constructed and will be operated in conformity with the license, the provisions of the [Atomic Energy Act of 1954 (AEA), as amended], and the Commission's rules and regulations."

## 3.0 TECHNICAL EVALUATION

### 3.1 EVALUATION OF THE REQUESTED CHANGES

Previous license amendment requests also requested consolidation of ITAAC or deletion of duplicative ITAAC: LAR 17-006, LAR 19-002, LAR 19-005, and LAR 19-007. LAR 17-006 was approved as VEGP Units 3 and 4 Amendment Nos. 85 and 84, respectively (ML17216A064). LAR 19-002 was approved as VEGP Units 3 and 4 Amendment Nos. 170 and 168, respectively (ML19337A667). LAR 19-005 was approved as VEGP Units 3 and 4 Amendment Nos. 167 and

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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.

165, respectively (ML19164A263). LAR 19-007 was approved as VEGP Units 3 and 4 Amendment Nos. 163 and 161, respectively (ML19213A288).

### 3.1.1 Category a - "Assigned Division" ITAAC

Enclosure 1 to LAR 22-003, Section 2, "Detailed Description and Technical Evaluation," states the following:

Multiple ITAAC, referred to as "assigned division" ITAAC, require testing to confirm that a simulated test signal exists at the identified system Class 1E equipment when the assigned Class 1E division is provided a test signal. However, the functions covered by these ITAAC are also covered by the electrical ITAAC, resulting in unnecessary and burdensome duplication for the licensee.

The Unit 3 Uncompleted ITAAC Notifications (UINs) identify that the Assigned Division ITAAC are satisfied by verifying that the power supply cables/wiring are installed and terminated using approved construction drawings and cable/wiring termination documentation and that continuity testing is performed on each of the installed cables/wiring to confirm current flow within the installed cable/wiring. This scope is accomplished by the Quality Control Inspection Reports (QCIRs) for the specified Class 1E cable terminations.

The Electrical ITAAC also include the same QCIRs for Class 1E cable terminations in containment and the auxiliary building; thus, the Assigned Division ITAAC are redundant. (Note that these electrical ITAAC are the subject of the consolidation requested in Category b of this LAR, and thus shown therein.)

Electrical ITAAC are satisfied by the collection of QCIRs within containment, the non-radiologically controlled area of the auxiliary building, and the radiologically controlled area of the auxiliary building, which include:

- Class 1E cable installation,
  - Class 1E cable termination (i.e., a subset of QCIRs satisfy Assigned Division ITAAC document cable termination and continuity testing), and
  - Raceways that route Class 1E cables installation.
- ...

ITAAC 792, 793, and 794 verify that the Class 1E cables (within containment, the non-radiologically controlled area of the auxiliary building, and the radiologically controlled area of the auxiliary building, respectively) associated with only one division are routed in raceways assigned to the same division and that there are no other safety division electrical cables in a raceway assigned to a different division. In order for these ITAAC to be met, Class 1E cables between the power source and end components must be connected only to their assigned division (i.e., cables have been routed in the correct raceway and terminated to the correct component from its assigned division according to the design). The assigned division components also get tested to demonstrate specific functions, and thus are powered, via multiple ITAAC and licensing basis

requirements. Therefore, the two key attributes of meeting the Assigned Division ITAAC, (1) raceway installation, cable installation, and cable termination per design and (2) continuity testing (i.e., component is powered), are demonstrated by (1) ITAAC 792, 793, and/or 794 and (2) the ITAAC and licensing basis requirements.

The “assigned division” ITAAC listed below are proposed for deletion:

1. ITAAC 2.1.02.07b (Index No. 26), Reactor Coolant System (RCS)
2. ITAAC 2.1.03.09b (Index No. 83), Reactor System (RXS)
3. ITAAC 2.2.01.06b (Index No. 103), Containment System (CNS)
4. ITAAC 2.2.03.07b (Index No. 172), Passive Core Cooling System (PXS)
5. ITAAC 2.2.04.07b (Index No. 233), Steam Generator System (SGS)
6. ITAAC 2.2.05.06a (Index No. 263), Main Control Room Emergency Habitability System (VES)
7. ITAAC 2.3.02.06b (Index No. 296), Chemical and Volume Control System (CVS)
8. ITAAC 2.3.06.07b (Index No. 368), Normal Residual Heat Removal System (RNS)
9. ITAAC 2.3.07.06a (Index No. 399), Spent Fuel Pool Cooling System (SFS)
10. ITAAC 2.3.10.11a (Index No. 878), Liquid Radwaste System (WLS)
11. ITAAC 2.3.13.06b (Index No. 467), Primary Sampling System (PSS)
12. ITAAC 2.5.02.05a (Index No. 527), Protection and Safety Monitoring System (PMS)
13. ITAAC 2.6.01.03a (Index No. 582), Main ac Power System (ECS)
14. ITAAC 2.7.01.06a (Index No. 687), Nuclear Island Nonradioactive Ventilation System (VBS)

These ITAAC verify that a simulated test signal exists at the Class 1E equipment when the assigned Class 1E division is provided a test signal. Therefore, they all have a similar structure in their design commitment (DC); inspections, tests, and analyses (ITAs); and acceptance criteria (AC).

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
The Class 1E components identified in [Table X] are powered from their respective Class 1E division.	Testing will be performed by providing a simulated test signal in each Class 1E division.	A simulated test signal exists for Class 1E equipment identified in [Table X] when the assigned Class 1E division is provided the test signal.

Three of the electrical ITAAC (i.e., ITAAC 792, 793, and 794) verify that Class 1E electrical cables and communication cables associated with only one division are routed in raceways assigned to the same division. They too have a similar structure in their DC; ITAs; and AC.

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
Class 1E divisional electrical cables and communication cables associated with only one division are routed in their respective divisional raceways.	Inspections of the as-built Class 1E divisional cables and the as-built raceways that route the Class 1E cables will be conducted.	Class 1E electrical cables and communication cables ["inside" or "in" XXXX] associated with only one division are routed in raceways assigned to the same division. There are no other safety division electrical cables in a raceway assigned to a different division.

The staff evaluated the proposed changes to determine if each of the 14 ITAAC proposed to be removed is bounded by other ITAAC (that is, whether the other ITAAC directly or indirectly demonstrate the components identified within each referenced table are powered from their respective Class 1E division). The staff concluded the collection of electrical ITAAC Index Numbers 792, 793, and 794, bound the 14 ITAAC proposed to be removed from Appendix C of the VEGP Unit 4 COL and PS-DCD. The staff reached this conclusion based on the following:

1. As described above, for ITAAC 792, 793, and 794 to be met, Class 1E cables between the power source and end components must be connected only to their assigned division (i.e., cables have been routed in the correct raceway and terminated to the correct component from its assigned division according to the design). Verifying the entire length of cable from power source to end component is necessary to satisfy this ITAAC because the licensee can verify that the cable is associated with a particular division only when the cable route is complete. Therefore, meeting the AC for ITAAC 792, 793, and 794 demonstrates the DC for the "assigned division" ITAAC is met.
2. The licensee in its LAR identified other ITAAC which it believes supports removal of the 14 "assigned division" ITAAC. While many of the referenced ITAAC demonstrate circuit functionality, they do not demonstrate that the Class 1E components are being powered from their assigned Class 1E division. Therefore, the staff has not relied on this information in its evaluation of this LAR.
3. The difference in ITAs between the 14 "assigned division" ITAAC and ITAAC 792-794 (i.e., a test signal vs. inspection) is inconsequential. Both methods adequately demonstrate that the DC for the "assigned division" ITAAC (i.e., Class 1E components are powered from their respective Class 1E division) has been met. The use of a test signal may not demonstrate circuit functionality, nor does the ITAAC require it. Therefore, the two methods, though different, are equivalent in verifying the design commitment for the "assigned division" ITAAC.
4. The licensee states the ITAAC are redundant because the same Quality Control Inspection Reports (QCIRs) are used to demonstrate the AC for both ITAAC are met. The staff did not rely on this argument in the review of this LAR. The licensee's work products represent one means to complete an ITAAC and may be changed by the licensee. A licensee can use the same internal document (in this case, a QCIR) to satisfy multiple requirements; however, that doesn't make the requirements

duplicative. For example, using a single document to satisfy both hypothetical Requirement A and Requirement B does not necessarily mean that Requirements A and B are duplicative.

5. The licensee refers to the Initial Test Program and Technical Specification Surveillance requirements as additional justification supporting removal of the 14 “assigned division” ITAAC. The staff did not rely on this information in its review and evaluation because 10 CFR 52.97(b) requires that the ITAAC be sufficient to provide the requisite reasonable assurance. Thus, a finding on whether 10 CFR 52.97(b) is met depends on what the ITAAC verify and is not dependent on verification by means other than ITAAC.
6. For each of the ITAAC proposed for removal, the associated Updated Final Safety Analysis Report (UFSAR) design information is consistent with the current plant design, and no structure, system, or component (SSC), design function, or analysis, as described in the UFSAR, is affected by the proposed changes.

The staff reviewed the information in Enclosures 1-3 of LAR 22-003 and finds that each of the 14 “assigned division” ITAAC proposed for deletion is adequately verified via ITAAC Index Nos. 792, 793, 794.<sup>2</sup> SNC’s proposed changes do not modify the design of equipment, delete any technical requirements, or impact the ability of an SSC to perform its function, and the ITAAC will continue to provide reasonable assurance that the facility has been constructed and will be operated in conformity with the license, the AEA, and NRC rules and regulations. Therefore, within the scope of this LAR, the NRC concludes that 10 CFR 52.97(b) is satisfied and the proposed changes to delete the 14 “assigned division” ITAAC listed above are acceptable.

### 3.1.2 Category b - Consolidation of 18 electrical, cable raceway color code, and separation ITAAC

The design commitments for electrical separation criteria in the containment and auxiliary building are currently verified by 18 separate ITAAC. LAR 22-003 proposes to consolidate these 18 ITAAC into three ITAAC based on building and location: one ITAAC for containment; one for the non-radiologically controlled area of the auxiliary building, and one for the radiologically controlled area of the auxiliary building.

<b>Containment ITAAC - Unconsolidated</b>		<b>Containment ITAAC - Consolidated</b>
1	ITAAC 3.3.00.07aa (Index No. 789)	ITAAC 3.3.00.07d.ii.a (Index No. 800)
2	ITAAC 3.3.00.07ba (Index No. 792)	
3	ITAAC 3.3.00.07d.ii.a (Index No. 800)	
4	ITAAC 3.3.00.07d.iii.a (Index No. 803)	
5	ITAAC 3.3.00.07d.iv.a (Index No. 806)	
6	ITAAC 3.3.00.07d.v.a (Index No. 809)	

<b>Auxiliary Building (Non-Radiologically Controlled Areas) ITAAC - Unconsolidated</b>	<b>Auxiliary Building (Non-Radiologically Controlled Areas) ITAAC - Consolidated</b>
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<sup>2</sup> As discussed below, the LAR also proposes to consolidate ITAAC Index Nos. 792, 793, and 794 into ITAAC Index Nos. 800, 801, and 802, respectively. This proposed consolidation does not change the pertinent ITAAC requirements and therefore has no bearing on the staff’s conclusions here.

1	ITAAC 3.3.00.07ab (Index No. 790)	ITAAC 3.3.00.07d.ii.b (Index No. 801)
2	ITAAC 3.3.00.07bb (Index No. 793)	
3	ITAAC 3.3.00.07d.ii.b (Index No. 801)	
4	ITAAC 3.3.00.07d.iii.b (Index No. 804)	
5	ITAAC 3.3.00.07d.iv.b (Index No. 807)	
6	ITAAC 3.3.00.07d.v.b (Index No. 810)	

Auxiliary Building (Radiologically Controlled Areas) ITAAC - Unconsolidated		Auxiliary Building (Radiologically Controlled Areas) ITAAC - Consolidated
1	ITAAC 3.3.00.07ac (Index No. 791)	ITAAC 3.3.00.07d.ii.c (Index No. 802)
2	ITAAC 3.3.00.07bc (Index No. 794)	
3	ITAAC 3.3.00.07d.ii.c (Index No. 802)	
4	ITAAC 3.3.00.07d.iii.c (Index No. 805)	
5	ITAAC 3.3.00.07d.iv.c (Index No. 808)	
6	ITAAC 3.3.00.07d.v.c (Index No. 811)	

Enclosure 1 of LAR 22-003 describes these ITAAC as follows:

The first ITAAC of each of these sets requires verification that the Class 1E electrical cables, communication cables associated with only one division, and raceways that route the Class 1E electrical cables and the communication cables are identified by the appropriate color code. The second ITAAC of each these sets requires verification that Class 1E electrical cables and communication cables associated with only one division are routed in raceways assigned to the same division, and that there are no other safety division electrical cables in a raceway assigned to a different division.

The third ITAAC of each of these sets requires verification of vertical and horizontal separation of raceways, while the fourth, fifth, and sixth ITAAC of each set provide alternatives for separation that does not meet the criteria in the separation ITAAC. These alternatives include a) running the circuits in enclosed raceways or providing barriers, b) analyzing the separation distances less than those specified and not provided with enclosed raceways or barriers, or c) treat the non-Class 1E wiring as Class 1E wiring (i.e., an associated circuit) when the minimum separation distance is not met, and neither a barrier nor analysis is provided.

The staff reviewed the information in Enclosure 1-3 of LAR 22-003. For the containment building, ITAAC Index No. 800 would be revised by adding the DCs, ITAs, and ACs from ITAAC Index Nos. 789 and 792 and the ITAs and ACs from ITAAC Index Nos. 803, 806 and 809. ITAAC Index Nos. 789, 792, 803, 806, and 809 would be marked as deleted because their content would be reflected in revised ITAAC Index No. 800.

For the non-radiologically controlled area of the auxiliary building, ITAAC Index No. 801 would be revised by adding the DCs, ITAs, and ACs from ITAAC Index Nos. 790 and 793 and the ITAs and ACs from ITAAC Index Nos. 804, 807 and 810. ITAAC Index Nos. 790,

793, 804, 805, and 810 would be marked as deleted because their content would be reflected in revised ITAAC Index No. 800.

For the radiologically controlled area of the auxiliary building, ITAAC Index No. 802 would be revised by adding the DCs, ITAs, and ACs from ITAAC Index Nos. 791 and 794 and the ITAs and ACs from ITAAC Index Nos. 805, 808 and 811. ITAAC Index Nos. 791, 794, 805, 808, and 811 would be marked as deleted because their content would be reflected in revised ITAAC Index No. 800.

The staff notes that the associated DCs, ITAs, and ACs for the deleted ITAAC are added verbatim to the consolidated ITAAC except for one minor editorial change. The AC for ITAAC Index No. 805 is currently shown as "ii.c" but SNC proposes to change this to "iii.c" to make it consistent with the VEGP Unit 3 COL. This change also would align the AC numbering with the numbering of the corresponding ITA because both would use the same Roman numeral.

SNC's proposed changes do not modify the design of equipment, delete any technical requirements, or impact the ability of an SSC to perform its function, and the ITAAC will continue to provide reasonable assurance that the facility has been constructed and will be operated in conformity with the license, the AEA, and NRC rules and regulations. Therefore, within the scope of this LAR, the NRC concludes that 10 CFR 52.97(b) is satisfied and the proposed changes to consolidate the 18 ITAAC listed above are acceptable.

### 3.2 EVALUATION OF EXEMPTION

The regulations in Section III.B of Appendix D to 10 CFR Part 52 require a holder of a COL referencing Appendix D to 10 CFR Part 52 to incorporate by reference and comply with the requirements of Appendix D, including certified information in Tier 1 of the generic AP1000 DCD. Exemptions from Tier 1 information are governed by the change process in Section VIII.A.4 of Appendix D of 10 CFR Part 52. Because SNC has identified changes to plant-specific Tier 1 information, with corresponding changes to the associated COL Appendix C information resulting in the need for a departure, an exemption from the certified design information within plant-specific Tier 1 material is required to implement the LAR.

The Tier 1 information for which a plant-specific departure and exemption was requested is described above. The result of this exemption would be that SNC could implement the requested modifications to Tier 1 information, with corresponding changes to COL Appendix C. Pursuant to the provisions of 10 CFR 52.63(b)(1), an exemption from elements of the design as certified in the 10 CFR Part 52, Appendix D, design certification rule is requested for the specified Tier 1 change described and justified in LAR 22-003. 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, upon application by an applicant or licensee referencing a certified design, grant exemptions from one or more elements of the certification information, so long as the criteria given in 10 CFR 52.7, which in turn, references 10 CFR 50.12, are met. Also, the Commission must consider whether the special



circumstances which are defined by 10 CFR 50.12(a)(2) outweigh any potential decrease in safety due to reduced standardization caused by the exemption.

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. In accordance with 10 CFR 50.12, an exemption may be granted when: (1) the exemption is authorized by law, will not present an undue risk to public health and safety, and is 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 being present 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 the required exemption criteria is presented below.

### 3.2.1 AUTHORIZED BY LAW

This exemption would allow the licensee to implement the amendment described above. This 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. The NRC staff has determined that granting the licensee's proposed exemption will not result in a violation of the AEA or the Commission's regulations. Therefore, as required by 10 CFR 50.12(a)(1), the exemption is authorized by law.

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

As discussed above in the technical evaluation, the proposed changes comply with the NRC's substantive safety regulations. Therefore, there is no undue risk to the public health and safety.

### 3.2.3 CONSISTENT WITH COMMON DEFENSE AND SECURITY

The proposed exemption would allow changes as described above in the technical evaluation, thereby departing from the PS-DCD Tier 1 information. The changes do not alter or impede the design, function, or operation of any plant structure, system, or component (SSC) associated with the facility's physical or cybersecurity, 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.

### 3.2.4 SPECIAL CIRCUMSTANCES

Special circumstances, in accordance with 10 CFR 50.12(a)(2)(ii), are present, in part, 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 being changed is to verify that the licensee has

constructed the plant in accordance with the Tier 1 design commitments for the specified ITAAC so that the plant will be operated safely.

Special circumstances are present in the particular circumstances discussed in LAR 22-003 because the application of the specified Tier 1 information is not necessary to achieve the underlying purpose of the rule. The proposed changes provide an equivalent level of ITAAC verification when compared to the existing requirements. The proposed changes do not adversely affect any function or feature used for the prevention and mitigation of accidents or their safety analyses. The LAR and exemption request demonstrate that the proposed revisions to the Tier 1 information and corresponding changes to Appendix C will continue to meet applicable regulatory requirements. Therefore, for the above reasons, 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.

### 3.2.5 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 22-003, 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 that does not reduce the level of safety in the design. The design functions of the systems associated with this request will continue to be maintained because the associated revisions to the Tier 1 information support the design function of the associated SSCs. Consequently, the safety impact that may result from any reduction in standardization is minimized. In addition, the proposed changes provide better clarity in the existing requirements by eliminating duplicative ITAAC and consolidating similar ITAAC. Based on the foregoing reasons, the staff finds that the special circumstances outweigh any decrease in safety that may result from the reduction of standardization of the AP1000 design.

### 3.2.6 NO SIGNIFICANT REDUCTION IN SAFETY

The exemption request proposes to depart from the certified design by allowing changes discussed above in the technical evaluation. The proposed changes will not modify the design or operation of any systems or equipment, there are no new failure modes introduced by these changes and the level of safety provided by the current structures, systems, and components will be unchanged. 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.

For the reasons given above, the standards for an exemption from the specified Tier 1 information have been satisfied.

### 3.3 SUMMARY

In LAR 22-003, SNC proposed to make changes that would affect the COL Appendix C and corresponding PS-DCD Tier 1 information. None of the above proposed changes represent changes to the design, construction, or operation of the plant. The staff finds that with the proposed changes, the remaining ITAAC continue to be sufficient to verify that the facility has been constructed and will be operated in accordance with the license, the AEA, and NRC rules and regulations. Therefore, within the scope of this license amendment, the NRC finds that 10 CFR 52.97(b) is satisfied. The NRC also finds that the requirements for an exemption

from Tier 1 are satisfied. The NRC documented its review of the above changes in Sections 3.1 and 3.2 of this safety evaluation and finds the changes acceptable.

#### 4.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION

The NRC staff published its proposed no significant hazards consideration determination in the *Federal Register* on September 27, 2022 (87 FR 58540). The NRC's regulation in 10 CFR 50.92(c) states that the NRC may make a final determination, under the procedures in 10 CFR 50.91, 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; or (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.

An evaluation of the issue of no significant hazards consideration is presented below:

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

Response: No

The proposed change to Combined License (COL) Appendix C will consolidate, relocate, and subsume redundant ITAAC. No structure, system, or component (SSC) design or function is affected. No design or safety analysis is affected. The proposed changes do not affect any accident initiating event or component failure; thus the probabilities of the accidents previously evaluated are not affected. No function used to mitigate a radioactive material release and no radioactive material release source term is involved; 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 amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No

The proposed change to COL Appendix C does not affect the design or function of any SSC, but will consolidate, relocate, and subsume redundant ITAAC. The proposed changes would not introduce a new failure mode, fault, or sequence of events that could result in a radioactive material release.

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 amendment involve a significant reduction in a margin of safety?

Response: No

The proposed change to COL Appendix C to consolidate, relocate, and subsume redundant ITAAC would not affect any design parameter, function, or analysis. There would be no change to an existing design basis, design function, regulatory criterion, or analysis. No safety analysis or design basis acceptance limit/criterion is involved.

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

Based on the above evaluation, the staff concludes that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the staff has made a final determination that no significant hazards consideration is involved for the proposed amendment and that the amendment should be issued as allowed by the criteria contained in 10 CFR 50.91.

## 5.0 STATE CONSULTATION

In accordance with the Commission's regulations in 10 CFR 50.91(b), on October 17, 2022, the Georgia State official was notified of the proposed issuance of the amendment. The State official had no comment.

## 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 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, there has been no public comment on such finding as published in the *Federal Register* on September 27, 2022 (87 FR 58540), and the NRC has made a final no significant hazards consideration determination, as stated above. 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.

## 7.0 CONCLUSION

The 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, and (5) does not reduce the level of safety at the licensee's facility. Also, the staff has determined that the special circumstances for the exemption outweigh any decrease in safety that may

result from a reduction in standardization caused by the exemption. Therefore, the staff grants the licensee an exemption from the Tier 1 information requested by the licensee.

The staff has concluded, based on the considerations discussed in Section 3.1 that there is reasonable assurance that: (1) the health and safety of the public will not be endangered by the proposed changes, (2) the changes are 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.

## 8.0 REFERENCES

1. Southern Nuclear Operating Company, Vogtle Electric Generating Plant Unit 4, "Request for License Amendment and Exemption: Electrical Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Optimization (LAR 22-003)," September 2, 2022 (ML22245A122).
2. AP1000 Design Control Document, Revision 19, June 13, 2011 (ML11171A500).
3. Combined License NPF-92 for Vogtle Electric Generating Plant, Unit 4, Southern Nuclear Operating Company, April 10, 2014 (ML14100A135).
4. Vogtle Electric Generating Plant Units 3 and 4, Updated Final Safety Analysis Report, Revision 11, June 15, 2022 (ML22179A145).
5. Vogtle Electric Generating Plant Units 3 and 4, Tier 1, Revision 10, June 15, 2022 (ML22179A146).