From: Santos, Cayetano
Sent: Friday, August 19, 2022 10:04 AM
To: Vogtle PEmails
Cc: Gleaves, Billy
Subject: FW: RE: RE: RE: RE: RE: Proposed U4 ITAAC changes to be discussed at the Technical Exchange
Attachments: ND-22-0000_draft for PSM.pdf; U4 Electrical ITAAC Optimization LAR Based on U3 Lessons Learned.pdf

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From: Grant, Eddie <X2EDGRAN@SOUTHERNCO.COM>
Sent: Friday, August 19, 2022 9:37 AM
To: Santos, Cayetano <Cayetano.Santos@nrc.gov>
Cc: Chamberlain, Amy Christine <ACCHAMBE@southernco.com>; Roberts, Kelli Anne <KROBERTS@southernco.com>; Dorsey, Keith A. <kadorsey@southernco.com>
Subject: [External_Sender] RE: RE: RE: RE: RE: Proposed U4 ITAAC changes to be discussed at the Technical Exchange

Good morning Tanny.

Attached for discussion at the 8-25 presubmittal meeting is the draft LAR to consolidate U4 electrical ITAAC.

Thanks,
Eddie R. Grant
SNC - AP1000 Licensing

Hearing Identifier: Vogtle_COL_Docs_Public
Email Number: 635

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From: Santos, Cayetano

Created By: Cayetano.Santos@nrc.gov

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Southern Nuclear Operating Company

ND-22-####

Enclosure 1

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

Request for License Amendment:

Electrical Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Consolidation (LAR-22-003)

(This Enclosure consists of 16 pages, including this cover page.)

Table of Contents

Pursuant to 10 CFR 52.98(c), and in accordance with 10 CFR 50.90, Southern Nuclear Operating Company (SNC) (the "Licensee") hereby requests an amendment to Combined License (COL) No. NPF-92, for Vogtle Electric Generating Plant (VEGP) Unit 4.

1. SUMMARY DESCRIPTION

The proposed changes would make non-technical changes to COL Appendix C (and corresponding plant-specific Tier 1) information. The changes revise Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC), to a) remove ITAAC that duplicate activities needed to close other ITAAC, and b) consolidate a number of ITAAC to improve efficiency of the ITAAC completion and closure process.

a) The proposed changes (herein identified as Category a) include removal of several duplicative ITAAC that are related to verification of Class 1E equipment being signaled from an assigned division. These ITAAC are covered by the electrical ITAAC. These ITAAC include:

Index No	Subsection	System Name
26	2.1.2	Reactor Coolant System (RCS)
83	2.1.3	Reactor System (RXS)
103	2.2.1	Containment System (CNS)
172	2.2.3	Passive Core Cooling System (PXS)
233	2.2.4	Steam Generator System (SGS)
263	2.2.5	Main Control Room Emergency Habitability System (VES)
296	2.3.2	Chemical and Volume Control System (CVS)
368	2.3.6	Normal Residual Heat Removal System (RNS)
399	2.3.7	Spent Fuel Pool Cooling System (SFS)
878	2.3.10	Liquid Radwaste System (WLS)
467	2.3.13	Primary Sampling System (PSS)
527	2.5.2	Protection and Safety Monitoring System (PMS)
582	2.6.1	Main ac Power System (ECS)
687	2.7.1	Nuclear Island Nonradioactive Ventilation System (VBS)

b) The proposed changes (herein identified as Category b) include consolidation of a number of electrical cable and raceway color coding and separation ITAAC to improve efficiency of the ITAAC completion and closure process. These ITAAC include:

- Combining ITAAC 789, 792, 800, 803, 806, and 809 into a single ITAAC 800,
- Combining ITAAC 790, 793, 801, 804, 807, and 810 into a single ITAAC 801, and
- Combining ITAAC 791, 794, 802, 805, 808, and 811 into a single ITAAC 802.

The purpose of the proposed changes being requested is to:

- Reduce the forthcoming Unit 4 surge in ITAAC closures without compromising completion of the approved design, resulting in a reduction of both Licensee and Regulator resources.
- Reduce the number of ITAAC Closure Notification (ICNs) and regulatory burden for SNC and the NRC.
- Obtain formal upfront NRC review and approval to consolidate related ITAAC that rely on the same closure documentation.

Consolidation will not result in removal of any quality activity/design attribute or safety margin.

2. DETAILED DESCRIPTION AND TECHNICAL EVALUATION

Updated Final Safety Analysis Report (UFSAR) Tier 2 design descriptions are derived from plant design documents and the Tier 1 design information is "derived from Tier 2 information" as noted in 10 CFR Part 52, Appendix D, Section II.D. However, certain examples have been identified in COL Appendix C (and plant-specific Tier 1) to contain redundant ITAAC requirements or require completion of duplicative activities that may be completed at the same time. For each of the proposed changes described and evaluated below, COL Appendix C (and plant-specific Tier 1) changes are proposed to consolidate two or more ITAAC or to remove those that are directly duplicative. For each of the ITAAC proposed for consolidation or removal, the associated UFSAR design information is consistent with the current plant design, so no structure, system, or component (SSC), design function, or analysis, as described in the UFSAR, is affected by the proposed changes.

For each Category below, multiple ITAAC are proposed for consolidation or removal to allow a single completion package and ICN for each resulting ITAAC.

Category a) – "Assigned Division" ITAAC

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.

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.

SNC performed a review to confirm the identified assigned division ITAAC are redundant with the electrical ITAAC scope. The results determined 14 identified assigned division ITAAC that are redundant with the electrical ITAAC. (Note that these electrical ITAAC are the subject of the consolidation requested in Category b of this LAR, and thus shown therein.) The assigned division ITAAC shown below are proposed to be deleted.

COL Appendix C ITAAC 2.1.02.07b (plant-specific Tier 1 Table 2.1.2-4, ITAAC No. 7.b) for the Reactor Coolant System (RCS) is an ITAAC that requires assigned division testing.

Table 2.1.2-4
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
7.b) The Class 1E components identified in Table 2.1.2-1 are powered from their respective Class 1E division.	Testing will be performed on the RCS by providing a simulated test signal in each Class 1E division.	A simulated test signal exists at the Class 1E equipment identified in Table 2.1.2-1 when the assigned Class 1E division is provided the test signal.

COL Appendix C ITAAC 2.1.03.09b (plant-specific Tier 1 Table 2.1.3-2, ITAAC No. 9.b) for the Reactor System (RXS) is an ITAAC that requires assigned division testing.

Table 2.1.3-2
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
9.b) The Class 1E components identified in Table 2.1.3-1 are powered from their respective Class 1E division.	Testing will be performed by providing simulated test signals in each Class 1E division.	A simulated test signal exists for Class 1E equipment identified in Table 2.1.3-1 when the assigned Class 1E division is provided the test signal.

COL Appendix C ITAAC 2.2.01.06b (plant-specific Tier 1 Table 2.2.1-3, ITAAC No. 6.b) for the Containment System (CNS) is an ITAAC that requires assigned division testing.

Table 2.2.1-3
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
6.b) The Class 1E components identified in Table 2.2.1-1 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 at the Class 1E equipment identified in Table 2.2.1-1 when the assigned Class 1E division is provided the test signal.

COL Appendix C ITAAC 2.2.03.07b (plant-specific Tier 1 Table 2.2.3-4, ITAAC No. 7.b) for the Passive Core Cooling System (PXS) is an ITAAC that requires assigned division testing.

Table 2.2.3-4
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
7.b) The Class 1E components identified in Table 2.2.3-1 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 at the Class 1E equipment identified in Table 2.2.3-1 when the assigned Class 1E division is provided the test signal.

COL Appendix C ITAAC 2.2.04.07b (plant-specific Tier 1 Table 2.2.4-4, ITAAC No. 7.b) for the Steam Generator System (SGS) is an ITAAC that requires assigned division testing.

Table 2.2.4-4
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
7.b) The Class 1E components identified in Table 2.2.4-1 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 at the Class 1E equipment identified in Table 2.2.4-1 when the assigned Class 1E division is provided the test signal.

COL Appendix C ITAAC 2.2.05.06a (plant-specific Tier 1 Table 2.2.5-5, ITAAC No. 6.a) for the Main Control Room Emergency Habitability System (VES) is an ITAAC that requires assigned division testing.

Table 2.2.5-5
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
6.a) The Class 1E components identified in Table 2.2.5-1 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 at the Class 1E equipment identified in Table 2.2.5-1 when the assigned Class 1E division is provided the test signal.

COL Appendix C ITAAC 2.3.02.06b (plant-specific Tier 1 Table 2.3.2-4, ITAAC No. 6.b) for the Chemical and Volume Control System (CVS) is an ITAAC that requires assigned division testing.

Table 2.3.2-4
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
6.b) The Class 1E components identified in Table 2.3.2-1 are powered from their respective Class 1E division.	Testing will be performed on the CVS by providing a simulated test signal in each Class 1E division.	A simulated test signal exists at the Class 1E equipment identified in Table 2.3.2-1 when the assigned Class 1E division is provided the test signal.

COL Appendix C ITAAC 2.3.06.07b (plant-specific Tier 1 Table 2.3.6-4, ITAAC No. 7.b) for the Normal Residual Heat Removal System (RNS) is an ITAAC that requires assigned division testing.

Table 2.3.6-4
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
7.b) The Class 1E components identified in Table 2.3.6-1 are powered from their respective Class 1E division.	Testing will be performed on the RNS by providing a simulated test signal in each Class 1E division.	A simulated test signal exists at the Class 1E equipment identified in Table 2.3.6-1 when the assigned Class 1E division is provided the test signal.

COL Appendix C ITAAC 2.3.07.06a (plant-specific Tier 1 Table 2.3.7-4, ITAAC No. 6.a) for the Spent Fuel Pool Cooling System (SFS)is an ITAAC that requires assigned division testing.

Table 2.3.7-4 Inspections, Tests, Analyses, and Acceptance Criteria		
Design Commitment	**Inspections, Tests, Analyses**	**Acceptance Criteria**
6.a) The Class 1E components identified in Table 2.3.7-1 are powered from their respective Class 1E division.	Testing will be performed on the SFS by providing a simulated test signal in each Class 1E division.	A simulated test signal exists at the Class 1E components identified in Table 2.3.7-1 when the assigned Class 1E division is provided the test signal.

COL Appendix C ITAAC 2.3.10.11a (plant-specific Tier 1 Table 2.3.10-4, ITAAC No. 11.a) for the Liquid Radwaste System (WLS) is an ITAAC that requires assigned division testing.

Table 2.3.10-4 Inspections, Tests, Analyses, and Acceptance Criteria		
Design Commitment	**Inspections, Tests, Analyses**	**Acceptance Criteria**
11.a) The Class 1E components identified in Table 2.3.10-1 are powered from their respective Class 1E division.	Testing will be performed on the WLS by providing a simulated test signal in each Class 1E division.	A simulated test signal exists at the Class 1E components identified in Table 2.3.10-1 when the assigned Class 1E division is provided the test signal.

COL Appendix C ITAAC 2.3.13.06b (plant-specific Tier 1 Table 2.3.13-3, ITAAC No. 6.b) for the Primary Sampling System (PSS) is an ITAAC that requires assigned division testing.

Table 2.3.13-3 Inspections, Tests, Analyses, and Acceptance Criteria		
Design Commitment	**Inspections, Tests, Analyses**	**Acceptance Criteria**
6.b) The Class 1E components identified in Table 2.3.13-1 are powered from their respective Class 1E division.	Testing will be performed on the PSS by providing a simulated test signal in each Class 1E division.	A simulated test signal exists at the Class 1E equipment identified in Table 2.3.13-1 when the assigned Class 1E division is provided the test signal.

COL Appendix C ITAAC 2.5.02.05a (plant-specific Tier 1 Table 2.5.2-8, ITAAC No. 5.a) for the Protection and Safety Monitoring System (PMS) is an ITAAC that requires assigned division testing.

Table 2.5.2-8
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
5.a) The Class 1E equipment, identified in Table 2.5.2-1, is powered from its respective Class 1E division.	Tests will be performed by providing a simulated test signal in each Class 1E division.	A simulated test signal exists at the Class 1E equipment identified in Table 2.5.2-1 when the assigned Class 1E division is provided the test signal.

COL Appendix C ITAAC 2.6.01.03a (plant-specific Tier 1 Table 2.6.1-4, ITAAC No. 3.a) for the Main ac Power System (ECS) is an ITAAC that requires assigned division testing.

Table 2.6.1-4
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
3.a) The Class 1E breaker control power for the equipment identified in Table 2.6.1-1 are powered from their respective Class 1E division.	Testing will be performed on the ECS by providing a simulated test signal in each Class 1E division.	A simulated test signal exists at the Class 1E equipment identified in Table 2.6.1-1 when the assigned Class 1E division is provided the test signal.

COL Appendix C ITAAC 2.7.01.06a (plant-specific Tier 1 Table 2.7.1-4, ITAAC No. 6.a) for the Nuclear Island Nonradioactive Ventilation System (VBS) is an ITAAC that requires assigned division testing.

Table 2.7.1-4
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
6.a) The Class 1E components identified in Table 2.7.1-1 are powered from their respective Class 1E division.	Testing will be performed on the VBS by providing a simulated test signal in each Class 1E division.	A simulated test signal exists at the Class 1E equipment identified in Table 2.7.1-1 when the assigned Class 1E division is provided the test signal.

Licensing Basis Change Descriptions

Each of the above identified ITAAC is proposed to be removed from the associated ITAAC table and replaced with "Not used per Amendment No. ###." The ### is a placeholder for the COL Amendment number assigned by the NRC upon approval of LAR-22-003.

Category b – Consolidation of Electrical ITAAC

COL Appendix C, Section 3.3 provides design descriptions for AP1000 structural buildings. The Nuclear Island (NI) structures, which include the containment and the auxiliary building, are described in Section 3.3. The design descriptions for the containment and the auxiliary building include electrical separation criteria, identified as:

a) 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 according to applicable color-coded Class 1E divisions.

b) Class 1E divisional electrical cables and communication cables associated with only one division are routed in their respective divisional raceways.

c) Separation is maintained between Class 1E divisions in accordance with the fire areas as identified in Table 3.3-3.

d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.

e) Class 1E communication cables which interconnect two divisions are routed and separated such that the Protection and Safety Monitoring System voting logic is not defeated by the loss of any single raceway or fire area.

Items a), b) and d) are readily verifiable with a single inspection and associated documentation. As such these are proposed to be consolidated for the respective areas of inside containment (ITAAC 789, 792, 800, 803, 806, and 809), the non-radiologically controlled area of the auxiliary building (ITAAC 790, 793, 801, 804, 807, and 810), and the radiologically controlled area of the auxiliary building (ITAAC 791, 794, 802, 805, 808, and 811).

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.

As previously noted, these ITAAC rely on the same set of documentation (i.e., cable installation QCIRs, cable termination QCIRs, and raceway installation QCIRs) and contain the same scope (i.e., Class 1E cables and raceways that route them in the areas specified). As one set of documentation can readily close these sets of ITAAC, they are requested to be combined as shown in the markups.

One inconsequential edit was determined to be necessary in the numbering of the acceptance criterion for VEGP Unit 4 COL Appendix C ITAAC No. 805, ITAAC Table 3.3-6, item 7.d, currently shows the acceptance criterion as “ii.c)” while it should be “iii.c)” as shown in the plant-specific Tier 1 information for VEGP Units 3 and 4 and in the Unit 3 COL Appendix C ITAAC No. 805 for ITAAC Table 3.3-6, item 7.d. This numbering is proposed to be editorially revised in the consolidated ITAAC No. 802.

Consolidation will minimize the number of ITAAC without eliminating or reducing scope of ITAAC; therefore, consolidation of these electrical separation ITAAC:

- Does not reduce the scope of ITA that are required to be performed,
- Does not eliminate the need to perform the required ITA for each impacted system, and
- Does not impact the scope of the 10 CFR 52.103(g) finding to be made by the Commission, indicating that the AC in COL Appendix C are met.

Licensing Basis Change Descriptions

ITAAC 789, 792, 800, 803, 806, and 809 are proposed to be consolidated as ITAAC 800.

ITAAC 790, 793, 801, 804, 807, and 810 are proposed to be consolidated as ITAAC 801.

ITAAC 791, 794, 802, 805, 808, and 811 are proposed to be consolidated as ITAAC 802.

Supporting Technical Details

Review of the closure of the VEGP Unit 3 ITAAC has resulted in SNC lessons learned and identification of potential changes to the Tier 1 information that would increase efficiency of closure of the associated Unit 4 ITAAC. These lessons have led to the proposed changes identified above.

The ITAAC described above are requested to be eliminated (Category a) and consolidated (Category b) because the actions and documentation required to complete the AC for these ITAAC are duplicative of other ITAAC (i.e., electrical ITAAC) and the ICNs would contain the same documentation. Thus, submittal of ICNs based upon the current COL Appendix C (and plant-specific Tier 1) information creates additional regulatory burden on the Licensee and the NRC staff. In addition, elimination and consolidation of redundant ITAAC reduces redundant documentation by reducing the number of ICNs and associated processing of documentation in accordance with the Paperwork Reduction Act of 1980.

The proposed ITAAC elimination and consolidation continues to meet the intent of 10 CFR Part 52 Appendix D and COL Appendix C (and plant-specific Tier 1) design descriptions, tables, and figures and 10 CFR 52.99 for ITAAC closure notification and completion. The ITAAC consolidation also does not make technical changes to the COL Appendix C (and plant-specific Tier 1) design descriptions, tables, and figures, because no SSC design function or analysis described in the UFSAR is being affected, no defense-in-depth safety function is affected, and no plant-specific ITAAC is technically changed.

COL Appendix C (and plant-specific Tier 1) information is comprised of the design information and functions subject to verification by the ITAAC closure process. The proposed changes neither affect the ability to meet design criteria or functions nor involve a decrease in the safety provided by the associated systems. COL Appendix C (and plant-specific Tier 1) ITAAC information would continue to adequately validate their corresponding UFSAR (Tier 2) design commitments. The proposed changes do not impact an SSC, function or feature used in the prevention or mitigation of accidents or their safety/design analyses. The changes do not affect any SSC accident initiator or initiating sequence of events or involve any safety-related SSC or function used to mitigate an accident.

The proposed changes do not involve a change to a fission product barrier. The changes do not result in a new failure mode, malfunction or sequence of events that could affect safety. The 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.

The proposed changes do not affect any safety-related equipment, design code limit, safety-related function, safety-related design analysis, safety analysis input or result, or design or safety margin. No safety analysis or design basis acceptance limit or criterion would be challenged or exceeded.

The proposed changes do not involve a technical (design, analysis, function, or qualification) change, e.g., there is no change to an associated calculation, design parameter or design requirement. Therefore, the changes would not result in a decrease in plant safety. The proposed changes associated with this license amendment request do not affect the containment, control, channeling, monitoring, processing or releasing of radioactive and non-radioactive materials. No effluent release path is involved. The types and quantities of expected effluents are not changed; therefore, radioactive or non-radioactive material effluents should not be affected. Plant radiation zones (as described in UFSAR Section 12.3), controls under 10 CFR 20, and expected amounts and types of radioactive materials

are not affected by the proposed changes. Therefore, individual and cumulative radiation exposures will not change.

UFSAR Chapter 14, Section 14.3, and NUREG-0800, Standard Review Plan (SRP), Section 14.3, define and describe requirements for ITAAC. Specifically, they identify that the purpose of the ITAAC is to verify that an as-built facility conforms to the approved plant design and applicable regulations. UFSAR Subsection 14.3.2.1 describes the selection criteria for certified design descriptions and ITAAC. The changes proposed by this request do not lessen the degree of conformity nor reduce the scope of the ITAAC as required by the UFSAR or the SRP, because the consolidated and redundant electrical ITAAC continue to meet the ITAAC selection criteria and provide verification that the as-built facility conforms to the approved plant design and applicable regulations.

Summary

The change consolidates a number of ITAAC in COL Appendix C (and plant-specific Tier 1) ITAAC Tables by relocating or removing multiple entries in order to minimize the number of ITAAC completion packages and ICNs. The above-mentioned licensing basis changes will also result in a change to the COL Appendix C (and corresponding plant-specific Tier 1) table of contents. These changes are considered administrative in nature since no technical changes are being made, the required inspections, tests and analyses are still being performed, and the margin of safety is not reduced.

3. TECHNICAL EVALUATION (Included in Section 2)

4. REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

10 CFR 52.98(c) requires NRC approval for any modification to, addition to, or deletion from the terms and conditions of a Combined License (COL). This activity involves a departure from COL Appendix C information, and a corresponding change to plant-specific Tier 1 information; therefore, this activity requires an amendment to the COL. Accordingly, NRC approval is required prior to making the plant-specific changes in this license amendment request.

4.2 Precedent

Previous VEGP license amendment request (LAR) 17-006 and its supplement, LAR-19-002, LAR-19-005, and LAR-19-007, provide precedents for this request as they requested similar ITAAC revisions. 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 165,

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

4.3 Significant Hazards Consideration Determination

The proposed changes would require non-technical changes to COL Appendix C information. These changes consolidate and relocate Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) and subsume redundant Inspections, Tests and Analyses (ITA) and Acceptance Criteria (AC) to improve efficiency of the ITAAC completion and closure process.

An evaluation to determine whether or not a significant hazards consideration is involved with the proposed amendment was completed by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

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

Response: No

The proposed non-technical change to Combined License (COL) Appendix C will consolidate, relocate and subsume redundant ITAAC in order to improve and create a more efficient process for the ITAAC Closure Notification submittals. 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.

4.3.2 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 in order to improve efficiency of the ITAAC completion and closure process. 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.

4.3.3 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 in order to improve efficiency of the ITAAC completion and closure process is considered non-technical and 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, it is concluded that the proposed amendment does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

4.4 Conclusions

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) 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. Pursuant to 10 CFR 50.92, the requested change does not involve a Significant Hazards Consideration Determination.

5. ENVIRONMENTAL CONSIDERATIONS

The proposed changes would require non-technical changes to COL Appendix C information. The changes consolidate and relocate Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) and subsume redundant Inspections, Tests and Analyses (ITA) and Acceptance Criteria (AC) to improve efficiency of the ITAAC completion and closure process.

A review has determined that the anticipated construction and operational effects of the proposed amendment meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9), in that:

(i) There is no significant hazards consideration.

As documented in Section 4.3, Significant Hazards Consideration Determination, of this license amendment request, an evaluation was completed to determine whether or not a significant hazards consideration is involved by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment." The Significant Hazards Consideration Determination determined that (1) the proposed amendment does not involve a significant increase in the probability or consequences of an accident

previously evaluated; (2) the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated; and (3) the proposed amendment does not involve a significant reduction in a margin of safety. Therefore, it is concluded that the proposed amendment does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of "no significant hazards consideration" is justified.

(ii) There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

The proposed change to COL Appendix C is to consolidate, relocate and subsume redundant ITAAC in order to create a more efficient process for the associated ITAAC Closure Notification submittals. The proposed changes are unrelated to any aspect of plant construction or operation that would introduce any change to effluent types (e.g., effluents containing chemicals or biocides, sanitary system effluents, and other effluents), or affect any plant radiological or non-radiological effluent release quantities. Furthermore, the proposed changes do not affect any effluent release path or diminish the functionality of any design or operational features that are credited with controlling the release of effluents during plant operation. Therefore, it is concluded that the proposed amendment does not involve a significant change in the types or a significant increase in the amounts of any effluents that may be released offsite.

(iii) There is no significant increase in individual or cumulative occupational radiation exposure.

The proposed change to COL Appendix C is to consolidate, relocate and subsume redundant ITAAC in order to create a more efficient process for the associated ITAAC Closure Notification submittals. Plant radiation zones (addressed in UFSAR Section 12.3) are not affected, and controls under 10 CFR 20 preclude a significant increase in occupational radiation exposure. Therefore, the proposed amendment does not involve a significant increase in individual or cumulative occupational radiation exposure.

Based on the above review of the proposed amendment, it has been determined that anticipated construction and operational impacts of the proposed amendment do not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in the individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), an environmental impact statement or environmental assessment of the proposed exemption is not required.

Southern Nuclear Operating Company

ND-22-####

Enclosure 2

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

Exemption Request:

Electrical Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Consolidation

(LAR-22-003)

(This Enclosure consists of 8 pages, including this cover page.)

1.0 Purpose

Southern Nuclear Operating Company (SNC), the Licensee, requests a permanent exemption from the provisions of 10 CFR 52, Appendix D, Section III.B, "Design Certification Rule for the AP1000 Design, Scope and Contents," to allow a departure from elements of the certified information in Tier 1 of the generic AP1000 Design Control Document (DCD). The regulation, 10 CFR 52, Appendix D, Section III.B, requires an applicant or licensee referencing Appendix D to 10 CFR Part 52 to incorporate by reference and comply with the requirements of Appendix D, including certification information in DCD Tier 1. Tier 1 includes ITAAC that must be satisfactorily performed prior to fuel load. The design details to be verified by these ITAAC are specified in the text, tables, and figures that are referenced in each individual ITAAC. The generic Tier 1 information from which an exemption is requested includes the plant-specific Tier 1 information, described below, for two categories of changes.

Category a) – "Assigned Division" ITAAC

The following plant-specific ITAAC items are proposed to be identified as "Not Used per Amendment No. ###" in the identified plant-specific Tier 1 tables, as shown in Enclosure 3 of this letter:

- Tier 1 Table 2.1.2-4, ITAAC Item 7.b
- Tier 1 Table 2.1.3-2, ITAAC Item 9.b
- Tier 1 Table 2.2.1-3, ITAAC Item 6.b
- Tier 1 Table 2.2.3-4, ITAAC Item 7.b
- Tier 1 Table 2.2.4-4, ITAAC Item 7.b
- Tier 1 Table 2.2.5-5, ITAAC Item 6.a
- Tier 1 Table 2.3.2-4, ITAAC Item 6.b
- Tier 1 Table 2.3.6-4, ITAAC Item 7.b
- Tier 1 Table 2.3.7-4, ITAAC Item 6.a
- Tier 1 Table 2.3.10-4, ITAAC Item 11.a
- Tier 1 Table 2.3.13-3, ITAAC Item 6.b
- Tier 1 Table 2.5.2-8, ITAAC Item 5.a
- Tier 1 Table 2.6.1-4, ITAAC Item 3.a
- Tier 1 Table 2.7.1-4, ITAAC Item 6.a

Category b – Consolidation of Electrical ITAAC

The plant-specific Tier 1 information is proposed to be revised by consolidating the Design Commitments, Inspections, Tests, Analyses, and Acceptance Criteria for the following plant-specific ITAAC items, as described below and as shown in Enclosure 3 of this letter. The consolidation relocates and combines the following ITAAC into a single ITAAC. The Design Commitments, Inspections, Tests, Analyses, and Acceptance Criteria remain unchanged.

- Tier 1 Table 3.3-6, Items 7.a, 7.b, and 7.d, for inside containment are consolidated in one ITAAC.
- Tier 1 Table 3.3-6, Items 7.a, 7.b, and 7.d, for the non-radiologically controlled area of the auxiliary building are consolidated in one ITAAC.
- Tier 1 Table 3.3-6, Items 7.a, 7.b, and 7.d, for the radiologically controlled area of the auxiliary building are consolidated in one ITAAC.

Other – Non-Impact for Unit 3

A single plant-specific Tier 1 document is maintained for both VEGP Units 3 and 4. However, since VEGP Unit 3 has already completed the ITAAC and the NRC has issued their confirmation of the completion in accordance with 10 CFR 52.103(g), the ITAAC are no longer requirements for VEGP Unit 3. Since the proposed changes impact only the ITAAC tables, a single plant-specific Tier 1 document can continue to be maintained for both VEGP Units 3 and 4 with no impact to Unit 3 requirements.

Summary

This request for exemption provides the technical and regulatory basis to demonstrate that 10 CFR 52.63, §52.7, and §50.12 requirements are met and will apply the requirements of 10 CFR 52, Appendix D, Section VIII.A.4 to allow departures from generic Tier 1 information due to proposed consolidation, relocation and elimination of VEGP Unit 4 ITAAC.

2.0 Background

The Licensee is the holder of Combined License No. NPF-92, which authorizes construction and operation of the Westinghouse Electric Company AP1000 nuclear plant, named Vogtle Electric Generating Plant (VEGP) Unit 4. The proposed changes would consolidate and relocate ITAAC and subsume redundant Inspections, Tests and Analyses (ITA) and Acceptance Criteria (AC) throughout the VEGP Unit 4 plant-specific Tier 1 information.

During preparation and submittal of ITAAC Closure Notifications (ICNs) for VEGP Unit 3, SNC identified potential additional efficiencies to the ICN submittal process. Submittal of the corresponding VEGP Unit 4 ICNs based upon the current plant-specific Tier 1 information creates additional regulatory burden on the Licensee and the NRC staff. The identified efficiencies would consolidate and relocate ITAAC and subsume redundant ITA and AC to improve efficiency of the ITAAC completion and closure process. This activity requests exemption from the Generic DCD Tier 1 tables that support the associated COL Appendix C ITAAC.

An exemption from elements of the AP1000 certified (Tier 1) design information is requested to allow plant-specific departures to be taken from the VEGP Unit 4 Tier 1 ITAAC Tables listed in Section 1.0 of this Enclosure.

3.0 Technical Justification of Acceptability

An exemption is requested to depart from AP1000 Generic DCD Tier 1 material by consolidating and relocating VEGP Unit 4 ITAAC and subsuming redundant ITA and AC. Consolidation, relocation, and subsumption of redundant ITAAC avoids redundant documentation by reducing the number of ICNs because redundant documentation is not submitted. The proposed ITAAC consolidation continues to meet the intent of 10 CFR Part 52 Appendix D and plant-specific Tier 1 design descriptions, tables, and figures. The proposed exemption would allow a change to the plant-specific Tier 1 ITAAC information consistent with existing plant-specific DCD Tier 2 information.

The proposed changes neither adversely impact the ability to meet the design functions of the SSCs nor involve a significant decrease in the level of safety provided by the structures, systems, or components. Because the proposed consolidations are consistent with plant-specific DCD Tier 2 information and the approved design, the changes do not affect a structure, system, or component. The proposed changes to information in plant-specific DCD Tier 1 continue to provide the detail necessary to implement the corresponding ITAAC.

Detailed technical justification supporting this request for exemption is provided in Section 2 of the associated License Amendment Request in Enclosure 1 of this letter.

4.0 Justification of Exemption

10 CFR 52, Appendix D, Section VIII.A.4, 10 CFR 52.63(b)(1), and 52.98(f) govern the issuance of exemptions from elements of the certified design information for AP1000 nuclear power plants. SNC has identified changes to the VEGP Unit 4 Tier 1 information as a result of lessons learned during the closure of the VEGP Unit 3 ITAAC. Thus, an exemption to the certified design information in the VEGP Unit 4 Tier 1 is needed.

10 CFR 52, Appendix D, and 10 CFR 50.12, §52.7, and §52.63 state that the NRC may grant exemptions from the requirements of the regulations provided six conditions are met: 1) the exemption is authorized by law [§50.12(a)(1)]; 2) the exemption will not present an undue risk to the health and safety of the public [§50.12(a)(1)]; 3) the exemption is consistent with the common defense and security [§50.12(a)(1)]; 4) special circumstances are present [§50.12(a)(2)(ii)]; 5) the special circumstances outweigh any decrease in safety that may result from the reduction in standardization caused by the exemption [§52.63(b)(1)]; and 6) the design change will not result in a significant decrease in the level of safety [Part 52, App. D, VIII.A.4].

The requested exemption satisfies the criteria for granting specific exemptions, as described below.

1. This exemption is authorized by law

The NRC has authority under 10 CFR 52.63, §52.7, and §50.12 to grant exemptions from the requirements of NRC regulations. Specifically, 10 CFR 50.12 and §52.7 state that the NRC may grant exemptions from the requirements of 10 CFR Part 52 upon a proper showing. No law exists that would preclude the changes covered by this

exemption request. Additionally, granting of the proposed exemption does not result in a violation of the Atomic Energy Act of 1954, as amended, or the Commission's regulations.

Accordingly, this requested exemption is "authorized by law," as required by 10 CFR 50.12(a)(1).

2. This exemption will not present an undue risk to the health and safety of the public

The proposed exemption from the requirements of 10 CFR 52, Appendix D, Section III.B, would allow changes to elements of the plant-specific DCD Tier 1 to depart from the AP1000 certified (Tier 1) design information. The plant-specific DCD Tier 1 will 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. Therefore, the affected plant-specific DCD Tier 1 ITAAC will continue to serve its required purpose.

These changes will not impact the ability of the SSCs to perform their design functions. Because the changes will not alter the design, construction, or operation of any plant equipment or systems, these changes do not present an undue risk to existing equipment or systems. These changes do not add any new equipment or system interfaces to the current plant design. The description changes do not introduce any new industrial, chemical, or radiological hazards that would represent a public health or safety risk, nor do they modify or remove any design or operational controls or safeguards that are intended to mitigate any existing on-site hazards. Furthermore, the proposed changes would not allow for a new fission product release path, result in a new fission product barrier failure mode, or create a new sequence of events that would result in significant fuel cladding failures. Accordingly, these changes do not present an undue risk from any new equipment or systems.

Therefore, the requested exemption from 10 CFR 52, Appendix D, Section III.B, would not present an undue risk to the health and safety of the public.

3. The exemption is consistent with the common defense and security

The requested exemption from the requirements of 10 CFR 52, Appendix D, Section III.B, would allow the Licensee to depart from elements of the plant-specific DCD Tier 1 ITAAC information. The requested exemption does not alter the design, function, or operation of any structure or plant equipment that is necessary to maintain a safe and secure status of the plant. The requested exemption has no impact on plant security or safeguards procedures.

Therefore, the requested exemption is consistent with the common defense and security.

4. Special circumstances are present

10 CFR 50.12(a)(2) lists six "special circumstances" for which an exemption may be granted. Pursuant to the regulation, it is necessary for one of these special circumstances to be present in order for the NRC to consider granting an exemption

request. The requested exemption meets the special circumstances of 10 CFR 50.12(a)(2)(ii). That subsection defines special circumstances as when "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 rule under consideration in this request for exemption is 10 CFR 52, Appendix D, Section III.B, which requires that a licensee referencing the AP1000 Design Certification Rule (10 CFR Part 52, Appendix D) shall incorporate by reference and comply with the requirements of Appendix D, including Tier 1 information. The VEGP Units 3 and 4 COLs reference the AP1000 Design Certification Rule and incorporate by reference the requirements of 10 CFR Part 52, Appendix D, including Tier 1 information. The underlying purpose of Appendix D, Section III.B, is to describe and define the scope and contents of the AP1000 design certification, and to require compliance with the design certification information in Appendix D.

The proposed changes to consolidate and relocate ITAAC and subsume redundant ITA and AC maintain the design functions of the systems. This change does not impact the ability of any SSCs to perform their functions or negatively impact safety. Accordingly, this exemption from the certification information will enable the licensee to safely construct and operate the AP1000 facility consistent with the design certified by the NRC in 10 CFR 52, Appendix D.

Therefore, special circumstances are present, because application of the current generic certified design information in Tier 1 as required by 10 CFR Part 52, Appendix D, Section III.B, in the particular circumstances discussed in this request is not necessary to achieve the underlying purpose of the rule.

5. The special circumstances outweigh any decrease in safety that may result from the reduction in standardization caused by the exemption

Based on the nature of the changes to the plant-specific Tier 1 information in this area and the understanding that these changes are not related to system functions, these changes will not have a negative impact. Nevertheless, if other AP1000 licensees do not elect to request this exemption, the special circumstances continue to outweigh any decrease in safety from the reduction in standardization because the key design functions associated with this request will continue to be maintained. This exemption request and the associated marked-up table demonstrate that there is a minimal change from the generic AP1000 DCD, minimizing the reduction in standardization and, consequently, the safety impact from the reduction.

Therefore, the special circumstances associated with the requested exemption outweigh any decrease in safety that may result from the reduction in standardization caused by the exemption.

6. The design change will not result in a significant decrease in the level of safety

The proposed exemption would allow changes to consolidate and relocate ITAAC and subsume redundant ITA and AC in plant-specific Tier 1. The consolidation will not impact the functional capabilities of the components identified in the affected ITAAC. Because the consolidation of ITAAC associated with this exemption request will not modify the design, construction, 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.

Because the proposed changes to the ITAAC will not adversely affect the ability of the structures, systems or components to perform their design functions and the level of safety provided by the structures, systems, and components is unchanged, it is concluded that the changes associated with proposed exemption will not result in a significant decrease in the level of safety.

5.0 RISK ASSESSMENT

A risk assessment was not determined to be applicable to address the acceptability of this proposal.

6.0 PRECEDENT

Previous VEGP license amendment request (LAR) 17-006 and its supplement, LAR-19-002, LAR-19-005, and LAR-19-007, provide precedents for this request as they requested similar ITAAC revisions. 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 165, respectively [ML19164A263]. LAR-19-007 was approved as VEGP Units 3 and 4 Amendment Nos. 163 and 161, respectively [ML19213A288].

7.0 ENVIRONMENTAL CONSIDERATION

The Licensee requests a departure from elements of the certified information in Tier 1 of the generic AP1000 DCD. The Licensee has determined that the proposed departure would require a permanent exemption from the requirements of 10 CFR 52, Appendix D, Section III.B, Design Certification Rule for the AP1000 Design, Scope and Contents, with respect to installation or use of facility components located within the restricted area, as defined in 10 CFR Part 20, or which changes an inspection or a surveillance requirement; however, the Licensee evaluation of the proposed exemption has determined that the proposed exemption meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9).

Based on the above review of the proposed exemption, the Licensee has determined that the proposed activity does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in the individual or cumulative occupational radiation exposure. Accordingly, the proposed 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), an environmental impact statement or environmental assessment of the proposed exemption is not required.

Specific details of the environmental considerations supporting this request for exemption are provided in Section 5 of the associated License Amendment Request provided in Enclosure 1 of this letter.

8.0 CONCLUSION

The proposed changes to Tier 1 are necessary to consolidate information in ITAAC Tables in plant-specific DCD Tier 1 to improve efficiency of the ITAAC completion and closure process. The exemption request meets the requirements of 10 CFR 52.63, “Finality of Design Certifications,” 10 CFR 52.7, “Specific Exemptions,” 10 CFR 50.12, “Specific Exemptions,” and 10 CFR 52 Appendix D, “Design Certification Rule for the AP1000.” Specifically, the exemption request meets the criteria of 10 CFR 50.12(a)(1) in that the request is authorized by law, presents no undue risk to public health and safety, and is consistent with the common defense and security. Furthermore, approval of this request does not result in a significant decrease in the level of safety, satisfies the underlying purpose of the AP1000 Design Certification Rule, and does not present a significant decrease in safety as a result of a reduction in standardization.

Southern Nuclear Operating Company

ND-22-####

Enclosure 3

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

Proposed Changes to the Licensing Basis Documents

(LAR-22-003)

Note:
Added text is shown as Blue Underline
Deleted text is shown as ~~Red Strikethrough~~
Relocated text is shown as ~~Green Underline or Strikethrough~~
* * * indicates omitted existing text that is not shown and is not revised.

(This Enclosure consists of 25 pages, including this cover page.)

ND-22-####
Enclosure 3
Proposed Changes to the Licensing Basis Documents (LAR-22-003)

The COL Appendix C changes presented in this enclosure will also require the COL Appendix C Table of Contents on pages C-1 through C-5 to be revised accordingly.

Assigned Division Deletions

Revise COL Appendix C (and plant-specific Tier 1) Section 2.1, Reactor, Subsection 2.1.2, Reactor Coolant System, Table 2.1.2-4, as shown below:

Table 2.1.2-4
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
* * *				
26	2.1.02.07b	Not used per Amendment No. ###. ~~7.b) The Class 1E components identified in Table 2.1.2-1 are powered from their respective Class 1E division.~~	~~Testing will be performed on the RCS by providing a simulated test signal in each Class 1E division.~~	~~A simulated test signal exists at the Class 1E equipment identified in Table 2.1.2-1 when the assigned Class 1E division is provided the test signal.~~
* * *				

ND-22-####
Enclosure 3
Proposed Changes to the Licensing Basis Documents (LAR-22-003)

Revise COL Appendix C (and plant-specific Tier 1) Section 2.1, Reactor, Subsection 2.1.3, Reactor System, Table 2.1.3-2, as shown below:

Table 2.1.3-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
* * *				
83	2.1.03.09b	Not used per Amendment No. ###. ~~9.b) The Class 1E components identified in Table 2.1.3-1 are powered from their respective Class 1E division.~~	~~Testing will be performed by providing simulated test signals in each Class 1E division.~~	~~A simulated test signal exists for Class 1E equipment identified in Table 2.1.3-1 when the assigned Class 1E division is provided the test signal.~~
* * *				

Revise COL Appendix C (and plant-specific Tier 1) Section 2.2, Nuclear Safety Systems, Subsection 2.2.1, Containment System, Table 2.2.1-3, as shown below:

Table 2.2.1-3
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
* * *				
103	2.2.01.06b	Not used per Amendment No. ###. ~~6.b) The Class 1E components identified in Table 2.2.1-1 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 at the Class 1E equipment identified in Table 2.2.1-1 when the assigned Class 1E division is provided the test signal.~~
* * *				

ND-22-####
Enclosure 3
Proposed Changes to the Licensing Basis Documents (LAR-22-003)

Revise COL Appendix C (and plant-specific Tier 1) Section 2.2, Nuclear Safety Systems, Subsection 2.2.3, Passive Core Cooling System, Table 2.2.3-4, as shown below:

Table 2.2.3-4
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
* * *				
172	2.2.03.07b	Not used per Amendment No. ###. ~~7.b) The Class 1E components identified in Table 2.2.3-1 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 at the Class 1E equipment identified in Table 2.2.3-1 when the assigned Class 1E division is provided the test signal.~~
* * *				

Revise COL Appendix C (and plant-specific Tier 1) Section 2.2, Nuclear Safety Systems, Subsection 2.2.4, Steam Generator System, Table 2.2.4-4, as shown below:

Table 2.2.4-4
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
* * *				
233	2.2.4.07b	Not used per Amendment No. ###. ~~7.b) The Class 1E components identified in Table 2.2.4-1 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 at the Class 1E equipment identified in Table 2.2.4-1 when the assigned Class 1E division is provided the test signal.~~
* * *				

ND-22-####
Enclosure 3
Proposed Changes to the Licensing Basis Documents (LAR-22-003)

Revise COL Appendix C (and plant-specific Tier 1) Section 2.2, Nuclear Safety Systems, Subsection 2.2.5, Main Control Room Emergency Habitability System, Table 2.2.5-5, as shown below:

Table 2.2.5-5
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
* * *				
263	2.2.05.06a	Not used per Amendment No. ###. ~~6.a) The Class 1E components identified in Table 2.2.5-1 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 at the Class 1E equipment identified in Table 2.2.5-1 when the assigned Class 1E division is provided the test signal.~~
* * *				

Revise COL Appendix C (and plant-specific Tier 1) Section 2.3, Auxiliary Systems, Subsection 2.3.2, Chemical and Volume Control System, Table 2.3.2-4, as shown below:

Table 2.3.2-4
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
* * *				
296	2.3.02.06b	Not used per Amendment No. ###. ~~6.b) The Class 1E components identified in Table 2.3.2-1 are powered from their respective Class 1E division.~~	~~Testing will be performed on the CVS by providing a simulated test signal in each Class 1E division.~~	~~A simulated test signal exists at the Class 1E equipment identified in Table 2.3.2-1 when the assigned Class 1E division is provided the test signal.~~
* * *				

ND-22-####
Enclosure 3
Proposed Changes to the Licensing Basis Documents (LAR-22-003)

Revise COL Appendix C (and plant-specific Tier 1) Section 2.3, Auxiliary Systems, Subsection 2.3.6, Normal Residual Heat Removal System, Table 2.3.6-4, as shown below:

Table 2.3.6-4
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
* * *				
368	2.3.06.07b	Not used per Amendment No. ###. ~~7.b) The Class 1E components identified in Table 2.3.6-1 are powered from their respective Class 1E division.~~	~~Testing will be performed on the RNS by providing a simulated test signal in each Class 1E division.~~	~~A simulated test signal exists at the Class 1E equipment identified in Table 2.3.6-1 when the assigned Class 1E division is provided the test signal.~~
* * *				

Revise COL Appendix C (and plant-specific Tier 1) Section 2.3, Auxiliary Systems, Subsection 2.3.7, Spent Fuel Pool Cooling System, Table 2.3.7-4, as shown below:

Table 2.3.7-4
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
* * *				
399	2.3.07.06a	Not used per Amendment No. ###. ~~6.a) The Class 1E components identified in Table 2.3.7-1 are powered from their respective Class 1E division.~~	~~Testing will be performed on the SFS by providing a simulated test signal in each Class 1E division.~~	~~A simulated test signal exists at the Class 1E components identified in Table 2.3.7-1 when the assigned Class 1E division is provided the test signal.~~
* * *				

ND-22-####
Enclosure 3
Proposed Changes to the Licensing Basis Documents (LAR-22-003)

Revise COL Appendix C (and plant-specific Tier 1) Section 2.3, Auxiliary Systems, Subsection 2.3.10, Liquid Radwaste System, Table 2.3.10-4, as shown below:

Table 2.3.10-4
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
* * *				
878	2.3.10.11a	Not used per Amendment No. ###. ~~11. a) The Class 1E components identified in Table 2.3.10-1 are powered from their respective Class 1E division.~~	~~Testing will be performed on the WLS by providing a simulated test signal in each Class 1E division.~~	~~A simulated test signal exists at the Class 1E components identified in Table 2.3.10-1 when the assigned Class 1E division is provided the test signal.~~
* * *				

Revise COL Appendix C (and plant-specific Tier 1) Section 2.3, Auxiliary Systems, Subsection 2.3.13, Primary Sampling System, Table 2.3.13-3, as shown below:

Table 2.3.13-3
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
* * *				
467	2.3.13.06b	Not used per Amendment No. ###. ~~6.b) The Class 1E components identified in Table 2.3.13-1 are powered from their respective Class 1E division.~~	~~Testing will be performed on the PSS by providing a simulated test signal in each Class 1E division.~~	~~A simulated test signal exists at the Class 1E equipment identified in Table 2.3.13-1 when the assigned Class 1E division is provided the test signal.~~
* * *				

ND-22-####
Enclosure 3
Proposed Changes to the Licensing Basis Documents (LAR-22-003)

Revise COL Appendix C (and plant-specific Tier 1) Section 2.5, Instrumentation and Control Systems, Subsection 2.5.2, Protection and Safety Monitoring System, Table 2.5.2-8, as shown below:

Table 2.5.2-8
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
* * *				
527	2.5.02.05a	Not used per Amendment No. ###. ~~5.a) The Class 1E equipment, identified in Table 2.5.2-1, is powered from its respective Class 1E division.~~	~~Tests will be performed by providing a simulated test signal in each Class 1E division.~~	~~A simulated test signal exists at the Class 1E equipment identified in Table 2.5.2-1 when the assigned Class 1E division is provided the test signal.~~
* * *				

Revise COL Appendix C (and plant-specific Tier 1) Section 2.6, Electrical Power Systems, Subsection 2.6.1, Main ac Power System, Table 2.6.1-4, as shown below:

Table 2.6.1-4
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
* * *				
582	2.6.01.03a	Not used per Amendment No. ###. ~~3.a) The Class 1E breaker control power for the equipment identified in Table 2.6.1-1 are powered from their respective Class 1E division.~~	~~Testing will be performed on the ECS by providing a simulated test signal in each Class 1E division.~~	~~A simulated test signal exists at the Class 1E equipment identified in Table 2.6.1-1 when the assigned Class 1E division is provided the test signal.~~
* * *				

ND-22-####
Enclosure 3
Proposed Changes to the Licensing Basis Documents (LAR-22-003)

Revise COL Appendix C (and plant-specific Tier 1) Section 2.7, HVAC Systems, Subsection 2.7.1, Nuclear Island Nonradioactive Ventilation System, Table 2.7.1-4, as shown below:

Table 2.7.1-4
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
* * *				
687	2.7.01.06a	Not used per Amendment No. ###. ~~6.a) The Class 1E components identified in Table 2.7.1-1 are powered from their respective Class 1E division.~~	~~Testing will be performed on the VBS by providing a simulated test signal in each Class 1E division.~~	~~A simulated test signal exists at the Class 1E equipment identified in Table 2.7.1-1 when the assigned Class 1E division is provided the test signal.~~
* * *				

ND-22-####
Enclosure 3
Proposed Changes to the Licensing Basis Documents (LAR-22-003)

Consolidation of Cable Separation ITAAC

Revise COL Appendix C (and plant-specific Tier 1) Section 3.3, Buildings, Table 3.3-6, as shown below to consolidate Nos. 789, 792, 800, 803, 806, and 809:

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
* * *				
789	3.3.00.07aa	Not used per Amendment No. ###. ~~7.a) 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 according to applicable color-coded Class 1E divisions.~~	~~Inspections of the as-built Class 1E cables and the as-built raceways that route the Class 1E cables will be conducted.~~	~~a) Class 1E electrical cables, and communication cables associated with only one division, and the raceways that route these cables inside containment are identified by the appropriate color code.~~
* * *				
792	3.3.00.07ba	Not used per Amendment No. ###. ~~7.b) 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.~~	~~a) Class 1E electrical cables and communication cables inside containment 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.~~
* * *				
800	3.3.00.07d. ii.a	7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.	Inspections of the as-built raceways that route Class 1E cables will be performed to confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following: ii.a) Within other plant areas (hazard areas), the minimum separation is defined by one of the following:	Results of the inspection will confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following: ii.a) Within other plant areas inside containment (hazard areas), the separation meets one of

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
				the following:
			1) The minimum vertical separation is 5 feet and the minimum horizontal separation is 3 feet.	1) The vertical separation is 5 feet or more and the horizontal separation is 3 feet or more.
			2) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches for raceways containing only instrumentation and control and low-voltage power cables ≤ 2/0 AWG. This minimum vertical separation is 3 inches for the configuration with a conduit above and crossing the open tray at an angle equal to or greater than 45 degrees.	2) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches for raceways containing only instrumentation and control and low-voltage power cables ≤ 2/0 AWG. This minimum vertical separation may be reduced to 3 inches for the configuration with a conduit above and crossing the open tray at an angle equal to or greater than 45 degrees.
			3) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches between a conduit and an open configuration for low- voltage power cables greater than 2/0 AWG but not greater than 750 kcmil. The vertical separation is 3 inches if a conduit is above and crossing an open tray at an angle equal to or greater than 45 degrees.	3) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches between a conduit and an open configuration for low- voltage power cables greater than 2/0 AWG but not greater than 750 kcmil. The vertical separation may be reduced to 3 inches if a conduit is above and crossing an open tray at an angle equal to or greater than 45 degrees.
			4) For configurations that involve exclusively limited energy content cables (instrumentation and control), the minimum vertical separation is 1 inch and the minimum horizontal separation is 1 inch.	4) For configurations that involve exclusively limited energy content cables (instrumentation and control), the minimum vertical separation is 1 inch and the minimum horizontal separation is 1 inch.
			5) For configurations	5) For configurations that

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
			involving an enclosed raceway and an open raceway with low-voltage power cables, the minimum vertical separation is 1 inch if the enclosed raceway is below the open raceway.	involve an enclosed raceway and an open raceway with low-voltage power cables, the minimum vertical separation is 1 inch if the enclosed raceway is below the open raceway.
			6) For configuration involving enclosed raceways, the minimum separation is 1 inch in both horizontal and vertical directions.	6) For configurations that involve enclosed raceways, the minimum vertical and horizontal separation is 1 inch.
			7) The minimum vertical separation is 1 inch and the minimum horizontal separation is 1 inch for configurations with a non-safety conduit and a free air safety cable with low-voltage power cables and below.	7) The minimum vertical separation is 1 inch and the minimum horizontal separation is 1 inch for configurations with a non-safety conduit and a free air safety cable with low-voltage power cables and below.
			iii) Where minimum separation distances are not maintained, the circuits are run in enclosed raceways or barriers are provided.	iii.a) Where minimum separation distances are not met inside containment, the circuits are run in enclosed raceways or barriers are provided.
			iv) Separation distances less than those specified above and not run in enclosed raceways or provided with barriers are based on analysis.	iv.a) For areas inside containment, a report exists and concludes that separation distances less than those specified above and not provided with enclosed raceways or barriers have been analyzed.
			v) Non-Class 1E wiring that is not separated from Class 1E or associated wiring by the minimum separation distance or by a barrier or analyzed is considered as associated circuits and subject to Class 1E requirements.	v.a) For areas inside containment, non-Class 1E wiring that is not separated from Class 1E or associated wiring by the minimum separation distance or by a barrier or analyzed is treated as

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
				Class 1E wiring.
		7.a) 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 according to applicable color-coded Class 1E divisions.	Inspections of the as-built Class 1E cables and the as-built raceways that route the Class 1E cables will be conducted.	a) Class 1E electrical cables, and communication cables associated with only one division, and the raceways that route these cables inside containment are identified by the appropriate color code.
		b) 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.	a) Class 1E electrical cables and communication cables inside containment 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.
* * *				
803	3.3.00.07d. iii.a	Not used per Amendment No. . ~~7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.~~	~~Inspections of the as-built raceways that route Class 1E cables will be performed to confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following:~~ ~~iii) Where minimum separation distances are not maintained, the circuits are run in enclosed raceways or barriers are provided.~~	~~Results of the inspection will confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following:~~ ~~iii.a) Where minimum separation distances are not met inside containment, the circuits are run in enclosed raceways or barriers are provided.~~
* * *				

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
806	3.3.00.07d. iv.a	Not used per Amendment No. ###. ~~7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.~~	~~Inspections of the as-built raceways that route Class 1E cables will be performed to confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following:~~ ~~iv) Separation distances less than those specified above and not run in enclosed raceways or provided with barriers are based on analysis.~~	~~Results of the inspection will confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following:~~ ~~iv.a) For areas inside containment, a report exists and concludes that separation distances less than those specified above and not provided with enclosed raceways or barriers have been analyzed.~~
* * *				
809	3.3.00.07d. v.a	Not used per Amendment No. ###. ~~7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.~~	~~Inspections of the as-built raceways that route Class 1E cables will be performed to confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following:~~ ~~v) Non-Class 1E wiring that is not separated from Class 1E or associated wiring by the minimum separation distance or by a barrier or analyzed is considered as associated circuits and subject to Class 1E requirements.~~	~~Results of the inspection will confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following:~~ ~~v.a) For areas inside containment, non-Class 1E wiring that is not separated from Class 1E or associated wiring by the minimum separation distance or by a barrier or analyzed is treated as Class 1E wiring.~~
* * *				

ND-22-####
Enclosure 3
Proposed Changes to the Licensing Basis Documents (LAR-22-003)

Revise COL Appendix C (and plant-specific Tier 1) Section 3.3, Buildings, Table 3.3-6, as shown below to consolidate Nos. 790, 793, 801, 804, 807, and 810:

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
* * *				
790	3.3.00.07ab	Not used per Amendment No. ###. ~~7.a) 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 according to applicable color-coded Class 1E divisions.~~	~~Inspections of the as-built Class 1E cables and the as-built raceways that route the Class 1E cables will be conducted.~~	~~b) Class 1E electrical cables, and communication cables associated with only one division, and the raceways that route these cables in the non-radiologically controlled area of the auxiliary building are identified by the appropriate color code.~~
* * *				
793	3.3.00.07bb	Not used per Amendment No. ###. ~~7.b) 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.~~	~~b) Class 1E electrical cables and communication cables in the non-radiologically controlled area of the auxiliary building 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.~~
* * *				
801	3.3.00.07d. ii.b	7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.	Inspections of the as-built raceways that route Class 1E cables will be performed to confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following: ii.b) Within other plant areas (limited hazard areas), the minimum separation is	Results of the inspection will confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following: ii.b) Within other plant areas inside the non-radiologically

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
			defined by one of the following:	controlled area of the auxiliary building (limited hazard areas), the separation meets one of the following:
			1) The minimum vertical separation is 5 feet and the minimum horizontal separation is 3 feet.	1) The vertical separation is 5 feet or more and the horizontal separation is 3 feet or more.
			2) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches for raceways containing only instrumentation and control and low-voltage power cables ≤ 2/0 AWG. This minimum vertical separation is 3 inches for the configuration with a conduit above and crossing the open tray at an angle equal to or greater than 45 degrees.	2) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches for raceways containing only instrumentation and control and low-voltage power cables ≤ 2/0 AWG. This minimum vertical separation may be reduced to 3 inches for the configuration with a conduit above and crossing the open tray at an angle equal to or greater than 45 degrees.
			3) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches between a conduit and an open configuration for low- voltage power cables greater than 2/0 AWG but not greater than 750 kcmil. The vertical separation is 3 inches if a conduit is above and crossing an open tray at an angle equal to or greater than 45 degrees.	3) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches between a conduit and an open configuration for low-voltage power cables greater than 2/0 AWG but not greater than 750 kcmil. The vertical separation may be reduced to 3 inches if a conduit is above and crossing an open tray at an angle equal to or greater than 45 degrees.
			4) For configurations that involve exclusively limited energy content cables (instrumentation and control), the minimum vertical separation is 1 inch and the minimum horizontal separation is 1 inch.	4) For configurations that involve exclusively limited energy content cables (instrumentation and control), the minimum vertical separation is 1 inch and the minimum horizontal separation is 1 inch.
			5) For configurations	5) For configurations that

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
			involving an enclosed raceway and an open raceway with low-voltage power cables, the minimum vertical separation is 1 inch if the enclosed raceway is below the open raceway.	involve an enclosed raceway and an open raceway with low-voltage power cables, the minimum vertical separation is 1 inch if the enclosed raceway is below the open raceway.
			6) For configuration involving enclosed raceways, the minimum separation is 1 inch in both horizontal and vertical directions.	6) For configurations that involve enclosed raceways, the minimum vertical and horizontal separation is 1 inch.
			7) The minimum vertical separation is 1 inch and the minimum horizontal separation is 1 inch for configurations with a non-safety conduit and a free air safety cable with low-voltage power cables and below.	7) The minimum vertical separation is 1 inch and the minimum horizontal separation is 1 inch for configurations with a non-safety conduit and a free air safety cable with low-voltage power cables and below.
			iii) Where minimum separation distances are not maintained, the circuits are run in enclosed raceways or barriers are provided.	iii.b) Where minimum separation distances are not met inside the non-radiologically controlled area of the auxiliary building, the circuits are run in enclosed raceways or barriers are provided.
			iv) Separation distances less than those specified above and not run in enclosed raceways or provided with barriers are based on analysis.	iv.b) For areas inside the non-radiologically controlled area of the auxiliary building, a report exists and concludes that separation distances less than those specified above and not provided with enclosed raceways or barriers have been analyzed.
			v) Non-Class 1E wiring that is not separated from Class 1E or associated wiring by the minimum separation distance or by a barrier or analyzed is considered as associated circuits and subject to Class	v.b) For areas inside the non-radiologically controlled area of the auxiliary building, non-Class 1E wiring that is not separated from Class 1E or associated wiring by the

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
			1E requirements.	minimum separation distance or by a barrier or analyzed is treated as Class 1E wiring.
		7.a) 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 according to applicable color-coded Class 1E divisions.	Inspections of the as-built Class 1E cables and the as-built raceways that route the Class 1E cables will be conducted.	b) Class 1E electrical cables, and communication cables associated with only one division, and the raceways that route these cables in the non-radiologically controlled area of the auxiliary building are identified by the appropriate color code.
		b) 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.	b) Class 1E electrical cables and communication cables in the non-radiologically controlled area of the auxiliary building 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.
* * *				
804	3.3.00.07d. iii.b	Not used per Amendment No. ###. ~~7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.~~	~~Inspections of the as-built raceways that route Class 1E cables will be performed to confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following:~~ ~~iii) Where minimum separation distances are not maintained, the circuits are run in enclosed raceways or barriers are provided.~~	~~Results of the inspection will confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following:~~ ~~iii.b) Where minimum separation distances are not met inside the non-radiologically controlled area of the auxiliary building, the circuits are run in enclosed~~

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
				~~raceways or barriers are provided.~~
		* * *		
807	3.3.00.07d. iv.b	Not used per Amendment No. ###. ~~7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.~~	~~Inspections of the as-built raceways that route Class 1E cables will be performed to confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following:~~ ~~iv) Separation distances less than those specified above and not run in enclosed raceways or provided with barriers are based on analysis.~~	~~Results of the inspection will confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following:~~ ~~iv.b) For areas inside the non-radiologically controlled area of the auxiliary building, a report exists and concludes that separation distances less than those specified above and not provided with enclosed raceways or barriers have been analyzed.~~
		* * *		
810	3.3.00.07d. v.b	Not used per Amendment No. ###. ~~7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.~~	~~Inspections of the as-built raceways that route Class 1E cables will be performed to confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following:~~ ~~v) Non-Class 1E wiring that is not separated from Class 1E or associated wiring by the minimum separation distance or by a barrier or analyzed is considered as associated circuits and subject to Class~~	~~Results of the inspection will confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following:~~ ~~v.b) For areas inside the non-radiologically controlled area of the auxiliary building, non-Class 1E wiring that is not separated from Class 1E or associated wiring by the minimum separation~~

ND-22-####
Enclosure 3
Proposed Changes to the Licensing Basis Documents (LAR-22-003)

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
			~~1E requirements.~~	~~distance or by a barrier or analyzed is treated as Class 1E wiring.~~
* * *				

ND-22-####
Enclosure 3
Proposed Changes to the Licensing Basis Documents (LAR-22-003)

Revise COL Appendix C (and plant-specific Tier 1) Section 3.3, Buildings, Table 3.3-6, as shown below to consolidate Nos. 791, 794, 802, 805, 808, and 811:

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
		* * *		
791	3.3.00.07ac	Not used per Amendment No. ###. ~~7.a) 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 according to applicable color-coded Class 1E divisions.~~	~~Inspections of the as-built Class 1E cables and the as-built raceways that route the Class 1E cables will be conducted.~~	~~c) Class 1E electrical cables, and communication cables associated with only one division, and the raceways that route these cables in the radiologically controlled area of the auxiliary building are identified by the appropriate color code.~~
		* * *		
794	3.3.00.07bc	Not used per Amendment No. ###. ~~7.b) 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.~~	~~c) Class 1E electrical cables and communication cables in the radiologically controlled area of the auxiliary building 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.~~
		* * *		
802	3.3.00.07d. ii.c	7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.	Inspections of the as-built raceways that route Class 1E cables will be performed to confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following: ii.c) Within other plant areas (limited hazard areas), the minimum separation is defined by one of the	Results of the inspection will confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following: ii.c) Within other plant areas inside the radiologically controlled area of the auxiliary

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
			following:	building (limited hazard areas), the separation meets one of the following:
			1) The minimum vertical separation is 5 feet and the minimum horizontal separation is 3 feet.	1) The vertical separation is 5 feet or more and the horizontal separation is 3 feet or more.
			2) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches for raceways containing only instrumentation and control and low-voltage power cables ≤ 2/0 AWG. This minimum vertical separation is 3 inches for the configuration with a conduit above and crossing the open tray at an angle equal to or greater than 45 degrees.	2) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches for raceways containing only instrumentation and control and low-voltage power cables ≤ 2/0 AWG. This minimum vertical separation may be reduced to 3 inches for the configuration with a conduit above and crossing the open tray at an angle equal to or greater than 45 degrees.
			3) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches between a conduit and an open configuration for low- voltage power cables greater than 2/0 AWG but not greater than 750 kcmil. The vertical separation is 3 inches if a conduit is above and crossing an open tray at an angle equal to or greater than 45 degrees.	3) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches between a conduit and an open configuration for low-voltage power cables greater than 2/0 AWG but not greater than 750 kcmil. The vertical separation may be reduced to 3 inches if a conduit is above and crossing an open tray at an angle equal to or greater than 45 degrees.
			4) For configurations that involve exclusively limited energy content cables (instrumentation and control), the minimum vertical separation is 1 inch and the minimum horizontal separation is 1 inch.	4) For configurations that involve exclusively limited energy content cables (instrumentation and control), the minimum vertical separation is 1 inch and the minimum horizontal separation is 1 inch.
			5) For configurations involving an enclosed	5) For configurations that involve an enclosed raceway

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
			raceway and an open raceway with low-voltage power cables, the minimum vertical separation is 1 inch if the enclosed raceway is below the open raceway.	and an open raceway with low-voltage power cables, the minimum vertical separation is 1 inch if the enclosed raceway is below the open raceway.
			6) For configuration involving enclosed raceways, the minimum separation is 1 inch in both horizontal and vertical directions.	6) For configurations that involve enclosed raceways, the minimum vertical and horizontal separation is 1 inch.
			7) The minimum vertical separation is 1 inch and the minimum horizontal separation is 1 inch for configurations with a non-safety conduit and a free air safety cable with low-voltage power cables and below.	7) The minimum vertical separation is 1 inch and the minimum horizontal separation is 1 inch for configurations with a non-safety conduit and a free air safety cable with low-voltage power cables and below.
			iii) Where minimum separation distances are not maintained, the circuits are run in enclosed raceways or barriers are provided.	iii.c) Where minimum separation distances are not met inside the radiologically controlled area of the auxiliary building, the circuits are run in enclosed raceways or barriers are provided.
			iv) Separation distances less than those specified above and not run in enclosed raceways or provided with barriers are based on analysis.	iv.c) For areas inside the radiologically controlled area of the auxiliary building, a report exists and concludes that separation distances less than those specified above and not provided with enclosed raceways or barriers have been analyzed.
			v) Non-Class 1E wiring that is not separated from Class 1E or associated wiring by the minimum separation distance or by a barrier or analyzed is considered as associated circuits and subject to Class 1E requirements.	v.c) For areas inside the radiologically controlled area of the auxiliary building, non-Class 1E wiring that is not separated from Class 1E or associated wiring by the minimum separation distance or by a barrier or analyzed is treated

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
				as Class 1E wiring.
		7.a) 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 according to applicable color-coded Class 1E divisions.	Inspections of the as-built Class 1E cables and the as-built raceways that route the Class 1E cables will be conducted.	c) Class 1E electrical cables, and communication cables associated with only one division, and the raceways that route these cables in the radiologically controlled area of the auxiliary building are identified by the appropriate color code.
		b) 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.	c) Class 1E electrical cables and communication cables in the radiologically controlled area of the auxiliary building 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.
* * *				
805	3.3.00.07d. iii.c	Not used per Amendment No. ###. ~~7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.~~	~~Inspections of the as-built raceways that route Class 1E cables will be performed to confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following:~~ ~~iii) Where minimum separation distances are not maintained, the circuits are run in enclosed raceways or barriers are provided.~~	~~Results of the inspection will confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following:~~ ~~ii.c) Where minimum separation distances are not met inside the radiologically controlled area of the auxiliary building, the circuits are run in enclosed raceways or barriers are provided.~~
* * *				

ND-22-####
Enclosure 3
Proposed Changes to the Licensing Basis Documents (LAR-22-003)

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
808	3.3.00.07d. iv.c	Not used per Amendment No. ###. ~~7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.~~	~~Inspections of the as-built raceways that route Class 1E cables will be performed to confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following:~~ ~~iv) Separation distances less than those specified above and not run in enclosed raceways or provided with barriers are based on analysis.~~	~~Results of the inspection will confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following:~~ ~~iv.c) For areas inside the radiologically controlled area of the auxiliary building, a report exists and concludes that separation distances less than those specified above and not provided with enclosed raceways or barriers have been analyzed.~~
* * *				
811	3.3.00.07d. v.c	Not used per Amendment No. ###. ~~7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.~~	~~Inspections of the as-built raceways that route Class 1E cables will be performed to confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following:~~ ~~v) Non-Class 1E wiring that is not separated from Class 1E or associated wiring by the minimum separation distance or by a barrier or analyzed is considered as associated circuits and subject to Class 1E requirements.~~	~~Results of the inspection will confirm that the separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables is consistent with the following:~~ ~~v.c) For areas inside radiologically controlled area of the auxiliary building, non-Class 1E wiring that is not separated from Class 1E or associated wiring by the minimum separation distance or by a barrier or analyzed is treated as Class 1E wiring.~~
* * *				

Pre-Submittal Meeting for Unit 4 Electrical ITAAC Optimization LAR based on Unit 3 Lessons Learned

Outline

- Lessons Learned Overview
- LAR Scope & Justification
- LAR Schedule

Unit 3 Lessons Learned Overview

- Previous consolidation LARs were successful
  – ITAAC that were not included in previous LARs would benefit from consolidation
- Some ITAAC are redundant of other ITAAC
  – Assigned division ITAAC
- Resulting proposed LAR is low complexity and consistent with approaches taken in previous ITAAC LARs

LAR Scope: Consolidate Electrical ITAAC for Unit 4

Current State	Containment	Aux Non-Rad	Aux Rad
Color Code ITAAC—Class 1E cables and raceways that route them are identified by appropriate color code	789	790	791
Divisional ITAAC—Class 1E cables associated with one division are routed in raceways assigned to the same division	792	793	794
Separation ITAAC—separation criteria between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables	800	801	802
Barrier ITAAC—where separation distances are not met, provide an enclosed raceway or barrier	803	804	805
Analysis ITAAC—where separation distances are not met and barriers are not provided, have an analysis	806	807	808
Associated Circuits—where separation/barrier/analysis cannot be provided, treat non-Class 1E wiring as Class 1E wiring (i.e., associated circuit)	809	810	811

LAR Scope: Consolidate Electrical ITAAC for Unit 4

Future Proposed State	Containment	Aux Non-Rad	Aux Rad
Separation ITAAC—separation criteria between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables Barrier ITAAC—where separation distances are not met, provide an enclosed raceway or barrier Analysis ITAAC—where separation distances are not met and barriers are not provided, have an analysis Associated Circuits—where separation/barrier/analysis cannot be provided, treat non-Class 1E wiring as Class 1E wiring (i.e., associated circuit) Color Code ITAAC—Class 1E cables and raceways that route them are identified by appropriate color code Divisional ITAAC—Class 1E cables associated with one division are routed in raceways assigned to the same division	800	801	802

LAR Justification: Consolidate Electrical ITAAC for Unit 4

- No changes to quality requirements or design attributes.
- No changes to ITAAC requirements
  - Does not reduce the scope of ITA that are required to be performed
  - Does not eliminate the need to perform the required ITA for each impacted system, and
  - Does not impact the scope of the 10 CFR 52.103(g) finding to be made by the Commission, indicating that the AC in COL Appendix C are met.
- Benefits/driver for requesting the change include:
  - Reducing the number of ITAAC Closure Notifications (ICNs) and associated paperwork
  - Overlap in the scope and closure documentation for these ITAAC
- All 18 ITAAC that are being consolidated are targeted for NRC inspection

LAR Scope: Redundant Assigned Division ITAAC for Unit 4

- Assigned Division ITAAC exist for each system with Class 1E components

  Design Commitment:

  The Class 1E components identified in Table {various} are powered from their respective Class 1E division.

  Inspections, Tests, Analyses (ITA):

  Testing will be performed by providing a simulated test signal in each Class 1E division.

  Acceptance Criteria (AC):

  A simulated test signal exists at the Class 1E equipment identified in Table {various} when the assigned Class 1E division is provided the test signal.

16 "Assigned Division" ITAAC

Index No	System
26	Reactor Coolant System (RCS)
83	Reactor System (RXS)
103	Containment System (CNS)
133	Passive Containment Cooling System (PCS)
172	Passive Core Cooling System (PXS)
233	Steam Generator System (SGS)
263	Main Control Room Emergency Habitability System (VES)
296	Chemical and Volume Control System (CVS)
368	Normal Residual Heat Removal System (RNS)
399	Spent Fuel Pool Cooling System (SFS)
467	Primary Sampling System (PSS)
527	Protection and Safety Monitoring System (PMS)
582	Main ac Power System (ECS)
601	Class 1E dc and Uninterruptible Power Supply System (IDS)
687	Nuclear Island Nonradioactive Ventilation System (VBS)
878	Liquid Radwaste System (WLS)

LAR Scope: Redundant Assigned Division ITAAC for Unit 4

- According to the Uncompleted ITAAC Notifications (UINs), 15 of the 16 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
- UIN for ITAAC 601 specifies that electrical independence of the IDS divisions is demonstrated by verifying the presence/absence of power at all division's components being tested, as each division is energized/de-energized.
- Electrical ITAAC include the QCIRs for Class 1E cable terminations in containment and the auxiliary building; thus, 15 assigned division ITAAC are potentially redundant (all but ITAAC 601)

LAR Scope: Redundant Assigned Division ITAAC for Unit 4

- 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., subset of QCIRs that satisfy Assigned Division ITAAC, where cable termination and continuity testing is documented)
  - Raceways that route Class 1E cables installation
- SNC performed a review to determine which of the 15 assigned division ITAAC are redundant with the electrical ITAAC scope.
  - ITAAC 133 (PCS) is not redundant, as a portion of this scope is within the Shield Building
  - Remaining 14 assigned division ITAAC are redundant with the electrical ITAAC scope
- There are 14 assigned division ITAAC that are redundant with other ITAAC and are being proposed to be deleted
- These 14 ITAAC are not targeted for NRC inspection

LAR Justification: Redundant Assigned Division ITAAC for Unit 4

- No changes to quality requirements or design attributes.
- Due to the overlap/duplication with the electrical ITAAC:
  - There are no changes to the scope (i.e., Class 1E cables for all components listed within the COL tables for the 14 ITAAC are included within the scope of Class 1E cables for containment, the non-radiologically controlled area of the auxiliary building, and the radiologically controlled area of the auxiliary building)
  - The exact same cable termination QCIRs required to meet assigned division are also necessary to demonstrate the electrical ITAAC (which also includes the cable installation and raceway QCIRs)

LAR Schedule

- Submittal Date: 8/31/2022
- Requested Approval Date: 1/7/2023