

From: Gleaves, Billy
Sent: Friday, January 3, 2020 11:34 AM
To: Kellenberger, Nicholas
Cc: Santos, Cayetano; Butler, Rhonda; Vogtle PEmails
Subject: RE: RE: Error in Amendment No. 167/165 COL Pages
Attachments: VEGP U4 App C (Amend No 165) - C-428 corrected.pdf; VEGP U3 App C (Amend No 167) - C-428 corrected.pdf; Vogtle LAR-19-005 Correction Letter Consolidation of Structural Building ITAAC Amendments 167 & 165.docx; Vogtle LAR-19-005 CORRECTED CLEAN Safety Evaluation Consolidation of Structural Building ITAAC R1.docx; Vogtle LAR-19-005 CORRECTED MARKUP Safety Evaluation Consolidation of Structural Building ITAAC R1.docx

Importance: High

Nick,

Please check over the attachments to see if you have any comments on these proposed draft correction documents. You will find attached:

- 1) The draft correction letter
- 2) The draft corrected "clean" SE
- 3) The draft corrected "markup" SE
- 4) The 2 pages of corrected attachments.

Do you see any errors or have any comments? I'll incorporate any comments that you have when I get them.

These are all DRAFT documents and they are for comment only and in no way represent a promise or a commitment on the part of the NRC to issue them. Only if they are approved will they be issued. This email is primarily for the purpose of ensuring alignment between NRC and SNC on whether NRC correctly interpreted SNC's request to correct the errors. This correction will require a full review and concurrence by the original contributors, as appropriate.

The 2nd purpose of this email is to document SNC's original email identifying the error and the NRC's response.

I believe that there is nothing sensitive in any of the attached information because it was all derived from non-sensitive public information.

Billy

William (Billy) Gleaves
Senior Project Manager
NRR/Vogtle Project Office
US Nuclear Regulatory Commission

The contents of this message may be sensitive. If this message has been received in error, please delete it without reading it. Your receipt of this message is not intended to waive any applicable privilege. Do not disseminate this message without the permission of the author. Communications by this author do not represent NRC policy and are not binding on the Commission.

From: Kellenberger, Nicholas <X2NRKELL@SOUTHERNCO.COM>
Sent: Thursday, December 19, 2019 4:06 PM
To: Gleaves, Billy <Bill.Gleaves@nrc.gov>; Santos, Cayetano <Cayetano.Santos@nrc.gov>
Cc: Quarles, Adam Graham <AGQUARLE@southernco.com>; Patel, Chandu <Chandu.Patel@nrc.gov>
Subject: [External_Sender] RE: Error in Amendment No. 167/165 COL Pages

Billy,

As we discussed and I confirmed the SER is written with the removal of the word “minimum” on page 6 and the staff found that was acceptable. This makes the issued COL pages consistent with the SER. I understand that makes a correction to the Amendment much more difficult for you. SNC is able to close the ITAAC as written, and therefore, do not require the correction to be made.

Thanks,

Nick Kellenberger
Vogtle 3 and 4 Site Licensing
phone: (706) 437-2333
mobile: (803) 391-9671

From: Gleaves, Billy <Bill.Gleaves@nrc.gov>
Sent: Thursday, December 19, 2019 11:22 AM
To: Kellenberger, Nicholas <X2NRKELL@SOUTHERNCO.COM>; Santos, Cayetano <Cayetano.Santos@nrc.gov>
Cc: Quarles, Adam Graham <AGQUARLE@southernco.com>; Patel, Chandu <Chandu.Patel@nrc.gov>
Subject: RE: Error in Amendment No. 167/165 COL Pages

EXTERNAL MAIL: Caution Opening Links or Files

Nick,

1st: What was the source of the error?
2nd: Give a description of the significance of the error?
3rd: Explain why an amendment is not necessary.
4th: Provide a “need by” date b/c I assume this can’t be implemented until the pages are reissued.

I will be on leave tomorrow (20th) but back to the office on Monday. Gov’t is closed 24th & 25th and I’ll be on leave on the 26th & 27th.

Respectfully,
Billy

From: Kellenberger, Nicholas <X2NRKELL@SOUTHERNCO.COM>
Sent: Thursday, December 19, 2019 10:58 AM
To: Santos, Cayetano <Cayetano.Santos@nrc.gov>; Gleaves, Billy <Bill.Gleaves@nrc.gov>

Cc: Quarles, Adam Graham <AGQUARLE@southernco.com>; Patel, Chandu <Chandu.Patel@nrc.gov>
Subject: [External_Sender] Error in Amendment No. 167/165 COL Pages

Tanny/Billy,

As our ITAAC team was working on closing ITAAC 782 they noticed a difference between the COL and LAR 19-005 markups (see attached "Pages from U3 Appendix C -ITAAC"). We have reviewed the rest of that LAR's markups against the COL pages issued in that amendment and we haven't found any other issues.

Please issue a correction letter for Amendments 167 and 165 for these markup pages. The new clean pages are attached.

Thanks,

Nick

Hearing Identifier: Vogtle_COL_Docs_Public
Email Number: 514

Mail Envelope Properties (BL0PR0901MB4387FD16EBCF9E16B15774879F230)

Subject: RE: RE: Error in Amendment No. 167/165 COL Pages
Sent Date: 1/3/2020 11:33:36 AM
Received Date: 1/3/2020 11:33:45 AM
From: Gleaves, Billy

Created By: Bill.Gleaves@nrc.gov

Recipients:

"Santos, Cayetano" <Cayetano.Santos@nrc.gov>
Tracking Status: None
"Butler, Rhonda" <Rhonda.Butler@nrc.gov>
Tracking Status: None
"Vogtle PEmails" <Vogtle.PEmails@nrc.gov>
Tracking Status: None
"Kellenberger, Nicholas" <X2NRKELL@SOUTHERNCO.COM>
Tracking Status: None

Post Office: BL0PR0901MB4387.namprd09.prod.outlook.com

Files	Size	Date & Time
MESSAGE	4621	1/3/2020 11:33:45 AM
VEGP U4 App C (Amend No 165) - C-428 corrected.pdf	89543	
VEGP U3 App C (Amend No 167) - C-428 corrected.pdf	89557	
Vogtle LAR-19-005 Correction Letter Consolidation of Structural Building ITAAC Amendments 167 & 165.docx	69338	
Vogtle LAR-19-005 CORRECTED CLEAN Safety Evaluation Consolidation of Structural Building ITAAC R1.docx	83572	
Vogtle LAR-19-005 CORRECTED MARKUP Safety Evaluation Consolidation of Structural Building ITAAC R1.docx	83197	

Options

Priority: High
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:

Table 3.3-6

Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
781	3.3.00.04a	Not used per Amendment No. 165		
782	3.3.00.04b	4.b) Walls of the waste accumulation room in the radwaste building except for designed openings or penetrations provide shielding during normal operations.	Inspection of the as-built radwaste building wall thicknesses will be performed.	A report exists and concludes that the shield walls of the waste accumulation room in the radwaste building except for designed openings or penetrations are consistent with the minimum concrete wall thicknesses of 1'-4", and a minimum concrete wall thickness of 1'-8" near the radwaste bunkers, or the report documents an evaluation of thickness deviations identified during construction and demonstrates there is no impact to compliance with the radiation protection licensing basis.
783		Deleted.		
784	3.3.00.05a	5.a) Exterior walls and the basemat of the nuclear island have a water barrier up to site grade.	An inspection of the as-built water barrier will be performed during construction.	A report exists that confirms that a water barrier exists on the nuclear island exterior walls up to site grade.
785	3.3.00.05b	5.b) The boundaries between rooms identified in Table 3.3-2 of the auxiliary building are designed to prevent flooding of rooms that contain safety-related equipment.	An inspection of the auxiliary building rooms will be performed.	A report exists that confirms floors and walls as identified on Table 3.3-2 have provisions to prevent flooding between rooms up to the maximum flood levels for each room defined in Table 3.3-2.

Table 3.3-6

Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
781	3.3.00.04a	Not used per Amendment No. 167		
782	3.3.00.04b	4.b) Walls of the waste accumulation room in the radwaste building except for designed openings or penetrations provide shielding during normal operations.	Inspection of the as-built radwaste building wall thicknesses will be performed.	A report exists and concludes that the shield walls of the waste accumulation room in the radwaste building except for designed openings or penetrations are consistent with the minimum concrete wall thicknesses of 1'-4", and a minimum concrete wall thickness of 1'-8" near the radwaste bunkers, or the report documents an evaluation of thickness deviations identified during construction and demonstrates there is no impact to compliance with the radiation protection licensing basis.
783		Deleted.		
784	3.3.00.05a	5.a) Exterior walls and the basemat of the nuclear island have a water barrier up to site grade.	An inspection of the as-built water barrier will be performed during construction.	A report exists that confirms that a water barrier exists on the nuclear island exterior walls up to site grade.
785	3.3.00.05b	5.b) The boundaries between rooms identified in Table 3.3-2 of the auxiliary building are designed to prevent flooding of rooms that contain safety-related equipment.	An inspection of the auxiliary building rooms will be performed.	A report exists that confirms floors and walls as identified on Table 3.3-2 have provisions to prevent flooding between rooms up to the maximum flood levels for each room defined in Table 3.3-2.



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

January XX, 2020

Mr. Brian H. Whitley, Director
Regulatory Affairs
Southern Nuclear Operating Company, Inc.
3535 Colonnade Parkway, Bin N-226-EC
Birmingham, AL 35243

SUBJECT: CORRECTION TO THE ATTACHMENTS AND SAFETY EVALUATION —
VOGTLE ELECTRIC GENERATING PLANT, UNITS 3 AND 4 — ISSUANCE OF
AMENDMENTS AND GRANTING OF EXEMPTIONS REGARDING
CONSOLIDATION OF STRUCTURAL BUILDING ITAAC (LAR-19-005, Revision 1)
(EPID L-2019-LLA-0069)

Dear Mr. Whitley:

The U.S. Nuclear Regulatory Commission (NRC) issued Amendment Nos. 167 and 165 to Combined License (COL) Nos. NPF-91 and NPF-92, for Vogtle Electric Generating Plant Units 3 and 4, respectively, on November 15, 2019. Following issuance, errors were found in the attachments to the amendments as well as an error in the associated safety evaluation (SE). The attachments to both Amendment No. 165 for Unit 3 and Amendment No. 167 for Unit 4 were issued with identical administrative errors on both Units 3 and 4 COL Appendix C, pages C-428 (ADAMS Accession Nos. ML19164A267 and ML19164A269, respectively). The errors were introduced when the attachment pages were issued based on Revision 0 of the license amendment request (LAR) and not based on the current Revision 1 of the LAR. The errors on both the Unit 3 and 4 COL Appendix C, pages C-428, in "Table 3.3-6, Inspections, Tests, Analyses, and Acceptance Criteria," occur in the Acceptance Criteria (AC) for entry No. 782. The AC should have included the word "minimum" before the word "concrete" in each location where it appears, as was intended when the Revision 1 of the LAR was submitted.

In addition, the SE (ADAMS Accession No. ML19164A271) contained a similar error that reflected the LAR Revision 0 request to remove the word "minimum" that was not contained in Revision 1 of the LAR. Revision 1 did not request the removal of the word "minimum" before the word "concrete." So to correct the SE, the current sentence reflecting the staff's review of the deletion of the word "minimum" has been deleted to reflect the current LAR Revision 1. The staff has reviewed the impact of that deletion on the regulatory conclusion and has concluded that the removal of that statement has no impact on the previously issued SE and the amendments.

The corrected Unit 3 and 4 COL Appendix C, page C-428 for Amendment Nos. 167 and 165 for COL Nos. NPF-91 and NPF-92, which include the corrected COL Appendix C, page C-428, as well as the corrected SE, is included with this letter as Enclosures and can be found in ADAMS under Accession Nos. ML200XXAYY1, ML200XXAYY2, and ML200XXAYY3, respectively. We regret any inconvenience that this has caused.

B. Whitley

- 2 -

If you have any questions regarding this matter, please contact me at (301) 415-5848, or via e-mail at bill.gleaves@nrc.gov.

Sincerely,

William (Billy) Gleaves, Sr. Project Manager
Vogtle Project Office
Office of Nuclear Reactor Regulation

Docket No(s): 52-025
52-026

Enclosures:

1. Corrected Attachment to License Amendment No. 167 for COL No. NPF-91
2. Corrected Attachment to License Amendment No. 165 for COL No. NPF-92
3. Corrected Safety Evaluation

cc: See next page

SUBJECT: CORRECTION TO THE ATTACHMENTS AND SAFETY EVALUATION —
VOGTLE ELECTRIC GENERATING PLANT, UNITS 3 AND 4 — ISSUANCE OF
AMENDMENTS AND GRANTING OF EXEMPTIONS REGARDING
CONSOLIDATION OF STRUCTURAL BUILDING ITAAC (LAR-19-005, Revision 1)
(EPID L-2019-LLA-0069) DATED: JANUARY XX, 2020

DISTRIBUTION:

Public	RidsNroDnrl	CSantos, VPO
RidsNrrVpo	RidsAcrsAcnwMailCenter	VHall, VPO
JHeisserer, RII	RidsOgcMailCenter	RButler, VPO
RidsRgn2MailCenter	WGleaves, VPO	PPatel, NRR

ADAMS Accession No.: ML20xxxAyyy

NRR-001

OFFICE	VPO: PM	VPO: LA	VPO: PM	VPO: BC	OGC	NRR/DEX/ESEA	VPO: PM
NAME	WGleaves (c)	RButler	CSantos (c)	VHall		DWilliams	WGleaves (s)
DATE	/ /20	/ /20	/ /20	/ /20	/ /20	/ /20	/ /20

OFFICIAL RECORD COPY

Vogle Units 3 & 4 Mailing List



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 167 AND 165

TO THE COMBINED LICENSE NOS. NPF-91 AND NPF-92, RESPECTIVELY

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

GEORGIA POWER COMPANY

OGLETHORPE POWER CORPORATION

MEAG POWER SPVM, LLC

MEAG POWER SPVJ, LLC

MEAG POWER SPVP, LLC

CITY OF DALTON, GEORGIA

VOGTLE ELECTRIC GENERATING PLANT UNITS 3 AND 4

DOCKET NOS. 52-025 AND 52-026

1.0 INTRODUCTION

By letter dated March 29, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19088A274), the Southern Nuclear Operating Company, Inc. (SNC) requested that the U.S. Nuclear Regulatory Commission (NRC or Commission) amend Vogtle Electric Generating Plant (VEGP) Units 3 and 4, Combined License (COL) Nos. NPF-91 and NPF-92, respectively. The License Amendment Request (LAR) 19-005 requested changes to COL Appendix C and corresponding plant-specific design control document (PS-DCD) Tier 1 information to simplify and consolidate Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC), for certain buildings and structures, that are duplicative. Their consolidation is intended to improve the efficiency of the ITAAC completion and closure process. In addition, the proposed LAR would clarify that evaluations of thickness deviations will be included in the reconciliation and thickness reports in ITAAC acceptance criteria.

Pursuant to Section 52.63(b)(1) of Title 10 of the *Code of Federal Regulations* (10 CFR), SNC also requested an exemption from the provisions of 10 CFR Part 52, Appendix D, "Design Certification Rule for the AP1000 Design," Section III.B, "Scope and Contents." The requested exemption would allow a departure from the corresponding portions of the certified information

in Tier 1 of the generic DCD.¹ In order to modify the plant-specific design control document (PS-DCD) Tier 1 information, the NRC must find SNC's exemption request included in its submittal for the LAR to be acceptable. The staff's review of the exemption request, as well as the LAR, is included in this safety evaluation.

The Revision 1 to LAR 19-005, dated October 10, 2019, (ADAMS Accession No. ML19284C424) provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on May 20, 2019 (84 FR 22907).

2.0 REGULATORY EVALUATION

The VEGP COL Appendix C, Section 3.3, provides descriptions of AP1000 structures, including Nuclear Island (NI) structures such as containment internal structures, the shield building, and auxiliary building. COL Appendix C, Table 3.3-1, includes ITAAC for structural buildings. The ITAAC generally are for verifying structures and radiation shielding. Currently the ITAAC acceptance criteria for certain structures include both a structural reconciliation report and a structural thickness report, and for radiation shielding in the same building it may require a separate shielding thickness report. SNC stated that these ITAAC acceptance criteria are duplicative and have the potential to be combined. Other AP1000 structures which are not NI structures, such as the annex, turbine, and radioactive waste (Radwaste) buildings. These non-NI structures have ITAAC acceptance criteria requiring thickness reports for structural and/or shielding functions. The changes proposed for non-NI structures have a similar reason to be consolidated as described in the LAR. In addition, a note is proposed to be added to COL Appendix C, Table 3.3-1, to clarify that construction thickness deviations in NI structures, from those thicknesses specified in the table, are reconciled in the reconciliation reports in accordance with the ITAAC requirements.

The staff considered the following regulatory requirements in reviewing the LAR that included the proposed changes:

Appendix D, Section VIII.A.4 to 10 CFR Part 52 states that exemptions from Tier 1 information are governed by the requirements in 10 CFR 52.63(b)(1) and 10 CFR 52.98(f). It also states that the Commission will deny such a request if it finds that the design change will result in a significant decrease in the level of safety otherwise provided by the design.

Appendix D, Section VIII.B.5.a allows an applicant or licensee who references this appendix to depart from Tier 2 information, without prior NRC approval, unless the proposed departure involves a change to or departure from Tier 1 information, Tier 2* information, or the Technical Specifications, or requires a license amendment under paragraphs B.5.b or B.5.c of the section.

10 CFR 52.63(b)(1) allows the licensee who references a design certification rule to request NRC approval for an exemption from one or more elements of the certification information. The Commission may only grant such a request if it determines that the exemption will comply with

¹ While SNC describes the requested exemption as being from Section III.B of 10 CFR Part 52, Appendix D, the entirety of the exemption pertains to proposed departures from Tier 1 information in the PS-DCD. In the remainder of this evaluation, the NRC will refer to the exemption as an exemption from Tier 1 information to match the language of Section VIII.A.4 of 10 CFR Part 52, Appendix D, which specifically governs the granting of exemptions from Tier 1 information.

the requirements of 10 CFR 52.7, which, in turn, points to the requirements listed in 10 CFR 50.12 for specific exemptions. In addition to the factors listed in 10 CFR 52.7, the Commission shall consider whether the special circumstances outweigh any decrease in safety that may result from the reduction in standardization caused by the exemption. Therefore, any exemption from the Tier 1 information certified by Appendix D to 10 CFR Part 52 must meet the requirements of 10 CFR 50.12, 52.7, and 52.63(b)(1).

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

10 CFR 52.97(b) requires that the ITAAC included in the COL be necessary and sufficient to provide reasonable assurance that the facility has been constructed and will be operated in conformity with the license, the Atomic Energy Act of 1954, as amended (AEA), and the Commission's rules and regulations.

3.0 TECHNICAL EVALUATION

3.1 EVALUATION OF THE REQUESTED CHANGES

SNC states that the purpose of the LAR is to consolidate certain duplicative building and structure ITAAC to improve the efficiency of the ITAAC completion and closure process. Therefore, the information presented by SNC in this LAR was evaluated by the staff to confirm that the requested changes to the ITAAC Tables in Tier 1 do not substantively change the existing acceptance criteria. For the proposed ITAAC consolidation there have been no changes to the associated Updated Final Safety Analysis Report (UFSAR) design information for the current plant design, therefore, no structure, system, and component (SSC), design function, or analysis, as described in the UFSAR, is affected by the proposed changes.

In LAR 19-005, Revision 1, on page 4 of Enclosure 4, SNC indicated in the table that there are 16 ITAAC for structural buildings, which SNC divided into 4 categories based on whether the building is or is not in the NI. For each Category below, multiple ITAAC are proposed for consolidation to allow a single completion package for each consolidated ITAAC.

1. Nuclear Island ITAAC (Containment Internal Structures, Shield Building, Auxiliary Building – Non-Radiological areas, and Auxiliary Building – Radiological areas)
2. Annex Building ITAAC
3. Turbine Building ITAAC
4. Radwaste Building ITAAC (specifically the Waste Accumulation Room)

In addition, in Enclosure 5 of Revision 1, SNC included, for each consolidated ITAAC, a reference to the amendment number when this LAR is approved and implemented. The staff determined that SNC's statement that the retention of the ITAAC Number and ITAAC Index Number, as well as a reference to the applicable amendment number for each consolidated ITAAC, will ensure that the tracking and close-out of those ITAAC that are referenced in previous SNC and NRC documentation will be accomplished.

As explained below, the staff reviewed the proposed changes and determined that they do not change what the ITAAC are intended to verify. The proposed changes to the ITAAC tables, of Appendix C of the COL, are considered administrative in nature for consolidation purposes. There are no changes to the design, functional capabilities, method for performing a function, design analysis, safety analysis, or UFSAR Tier 2 information involved, and thus, the requested Tier 1 changes do not affect any design functions. The licensee stated in the submittal that during review of the Nonconformance & Disposition (N&D) Reports process, VEGP Units 3 and 4 licensing bases requirements associated with the nonconforming condition is performed. In addition to that if any changes to VEGP UFSAR, Tier 1, 2, or Tier 2*, information required to address the nonconformance, the processes for changes and departures described in 10 CFR Part 52, Appendix D, Section VIII, will be followed. Based on the licensee addressing the N&D Reports and the change process, the staff accepts the proposed changes to the table and ITAACs. Also, the proposed changes do not involve a change to the method of evaluation for establishing design bases or safety analyses. Finally, tests, experiments, and procedures described in the licensing basis were not changed by the proposed departures.

Category 1 - Nuclear Island ITAAC (Containment Internal Structures, Shield Building, Auxiliary Building – Non-Radiological, and Auxiliary Building – Radiological)

Several ITAAC verify that components within a given system demonstrate their safety or non-safety-related function by analysis. Each ITAAC require a report to be completed to close each ITAAC. The table below identifies the ITAAC acceptance criteria that are to be consolidated into one ITAAC report. SNC proposed to consolidate the ITAAC by moving the acceptance criteria from the ITAAC listed to the consolidated ITAAC, with the intended result being that reconciliation report will justify deviations from both structural and shielding perspectives.

ITAAC Change Table 1 for the Nuclear Island

Building/ Structure	Redundant Reports	ITAAC Index Number	ITAAC Number	Consolidated Report
Containment Internal Structure	Structural Thickness	764	3.3.00.02a.ii.a	Structural Reconciliation Report (760) 3.3.00.02a.i.a
	Shielding Thickness	777	3.3.00.03a	
Shield Building	Structural Thickness	765	3.3.00.02a.ii.b	Structural Reconciliation Report (761) 3.3.00.02a.i.b
	Shielding Thickness	778	3.3.00.03b	
Auxiliary Building (non- radiological)	Structural Thickness	766	3.3.00.02a.ii.c	Structural Reconciliation Report (762) 3.3.00.02a.i.c
	Shielding Thickness	779	3.3.00.03c	
Auxiliary Building (radiological)	Structural Thickness	767	3.3.00.02a.ii.d	Structural Reconciliation Report (763) 3.3.00.02a.i.d
	Shielding Thickness	780	3.3.00.03d	

These proposed changes would be reflected in changes to COL Appendix C, Table 3.3-1, to state that construction thickness deviations in NI structures, from this specified in the table, are reconciled in the reconciliation reports in accordance with ITAAC requirements.

The staff reviewed the proposed changes to consolidate these ITAAC and confirmed that the consolidated ITAAC require completion of the same processes and acceptance criteria as the existing ITAAC. Therefore, the staff confirmed that the requested changes are administrative and do not change what the existing ITAAC are intended to verify.

Category 2 – Annex Building ITAAC

In this category, two ITAAC acceptance criteria within the Annex Building demonstrate, by analysis, their function. Each ITAAC require a report to be completed to close each ITAAC. The table below identifies the two ITAAC acceptance criteria reports that are to be consolidated into one ITAAC report. SNC proposed to consolidate the ITAAC by moving the acceptance criteria from the individual ITAAC reports to the consolidated ITAAC report.

ITAAC Change Table 2 for the Annex Building

Building/ Structure	Redundant Reports	ITAAC Index Number	ITAAC Number	Consolidated Report
Annex Building	Structural Thickness	768	3.3.00.02a.ii.e	Structural Thickness Report (768) 3.3.00.02a.ii.e
	Shielding Thickness	781	3.3.00.04a	

In addition, SNC proposed that a note be added to COL Appendix C, Table 3.3-1, clarifying that the previously discussed annex building consolidated structural thickness report will also include evaluations of thickness deviations in accordance with ITAAC requirements. This proposed change would be reflected in a change to ITAAC Index Number 768 of COL Appendix C Table 3.3-6 by adding shielding requirements to the “Design Commitment.”

The staff reviewed the proposed changes to consolidate these ITAAC and confirmed that the consolidated ITAAC require completing the same processes and acceptance criteria as the existing ITAAC. Therefore, the staff confirmed that the requested changes are administrative and do not change what the existing ITAAC are intended to verify.

Category 3 – Turbine Building ITAAC

ITAAC 769 acceptance criteria requires a thickness report to verify the structural function. The acceptance criteria in ITAAC 769 would produce thickness reports for wall and floors, as applicable, to verify that they are consistent with thicknesses given in COL Appendix C, Table 3.3-1.

ITAAC Change Table 3 for the Turbine Building

Building/ Structure	Report	ITAAC Index Number	ITAAC Number
Turbine Building	Structural Thickness	769	3.3.00.02a.ii.f

For this change, SNC proposed that a note be added to COL Appendix C, Table 3.3-1, clarifying that the turbine building structural thickness report will also include evaluations of thickness deviations during construction and demonstrate there is no loss in the turbine building structural function in accordance with ITAAC requirements. The staff reviewed the proposed changes to this ITAAC and confirmed that the proposed ITAAC require completion of the same processes and have identical acceptance criteria as the existing ITAAC. Therefore, the staff confirmed that the requested changes are administrative and do not change what the existing ITAAC are intended to verify.

Category 4 – Radwaste Building ITAAC (Waste Accumulation Room)

ITAAC Index Number 782 associated with the waste accumulation room requires a shielding report to verify that the walls of the room provide radiation shielding during normal operations.

ITAAC Change Table 4 for Radwaste Building – Waste Accumulation Room

Building/ Structure	Report	ITAAC Index Number	ITAAC Number
Radwaste Building – Waste Accumulation Room	Shielding Thickness	782	3.3.00.04b

The acceptance criteria in ITAAC Index Number 782 would produce a shielding report to demonstrate that it is consistent with thicknesses given in COL Appendix C, Table 3.3-6. SNC proposed a change to the ITAAC Index Number 782 acceptance criteria to specify that the waste accumulation room thickness report includes evaluations of thickness deviations during construction and demonstrates that there is no loss in shielding. Because the proposed acceptance criteria include a report that evaluates thicknesses and thickness deviations and demonstrates no loss in shielding, SNC proposes to clarify the revised acceptance criteria to remove the word “minimum.” The staff reviewed the proposed changes to this ITAAC and confirmed that the proposed ITAAC require completion of the same processes and have identical acceptance criteria as the existing ITAAC. Therefore, the staff confirmed that the requested change is administrative and does not change what the existing ITAAC is intended to verify.

3.2 EVALUATION OF EXEMPTION

The regulations in Section III.B of Appendix D to 10 CFR Part 52 require a holder of a COL referencing Appendix D to 10 CFR Part 52 to incorporate by reference and comply with the

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

The Tier 1 information for which a plant-specific departure and exemption was requested is described above. The result of this exemption would be that SNC could implement modifications to Tier 1 information in the plant-specific DCD Tier and associated COL Appendix C. Pursuant to the provisions of 10 CFR 52.63(b)(1), an exemption from elements of the design as certified in the 10 CFR Part 52, Appendix D, design certification rule is requested for the involved Tier 1 information described and justified in LAR 19-005, Revision 1. This exemption is a permanent exemption limited in scope to the particular Tier 1 information specified.

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

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

3.2.1 AUTHORIZED BY LAW

The requested exemption would allow SNC to implement the amendment described above. This exemption is a permanent exemption limited in scope to particular Tier 1 information. Subsequent changes to this plant-specific Tier 1 information, and corresponding changes to Appendix C, or any other Tier 1 information would be subject to the exemption process specified in Section VIII.A.4 of Appendix D to 10 CFR Part 52 and the requirements of 10 CFR

52.63(b)(1). As stated above, 10 CFR Part 52, Appendix D, Section VIII.A.4 allows the NRC to grant exemptions from one or more elements of the Tier 1 information. The staff has determined that granting of SNC's proposed exemption will not result in a violation of the AEA, as amended, or the Commission's regulations. Therefore, as required by 10 CFR 50.12(a)(1), the exemption is authorized by law.

3.2.2 NO UNDUE RISK TO PUBLIC HEALTH AND SAFETY

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

3.2.3 CONSISTENT WITH COMMON DEFENSE AND SECURITY

The proposed exemption would allow changes as described above in the technical evaluation, thereby departing from the AP1000 certified (Tier 1) design information. The change does not alter or impede the design, function, or operation of any plant structures, systems, or components associated with the facility's physical or cyber security and, therefore, does not affect any plant equipment that is necessary to maintain a safe and secure plant status. In addition, the changes have no impact on plant security or safeguards. Therefore, as required by 10 CFR 50.12(a)(1), the staff finds that the common defense and security is not impacted by this exemption.

3.2.4 SPECIAL CIRCUMSTANCES

Special circumstances, in accordance with 10 CFR 50.12(a)(2), are present, in part, whenever application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule. The underlying purpose of the Tier 1 information is to ensure that a licensee will safely construct and operate a plant based on the certified information found in the AP1000 DCD, which was incorporated by reference into the VEGP Units 3 and 4 licensing basis. The proposed changes described in the above technical evaluation do not impact the ability of any SSCs to perform their functions or negatively impact safety.

Special circumstances are present in the particular circumstances discussed in LAR 19-005, Revision 1, because the application of the specified Tier 1 information is not necessary to achieve the underlying purpose of the rule. The proposed changes are equal or provide additional clarity to the existing requirement. The proposed changes do not affect any function or feature used for the prevention and mitigation of accidents or their safety analyses, and no safety-related SSC or function is involved. This exemption request and associated revisions to the Tier 1 information and corresponding changes to Appendix C demonstrate that the applicable regulatory requirements will continue to be met. Therefore, for the above reasons, the staff finds that the special circumstances required by 10 CFR 50.12(a)(2)(ii) for the granting of an exemption from the Tier 1 information exist.

3.2.5 SPECIAL CIRCUMSTANCES OUTWEIGH REDUCED STANDARDIZATION

This exemption would allow the implementation of changes to Tier 1 information in the plant-specific DCD and corresponding changes to COL Appendix C and corresponding plant-specific DCD Tier 1 information that are being proposed in the LAR. The justification provided in LAR 19-005, Revision 1, the exemption request, and the associated licensing basis mark-ups demonstrate that there is a limited change from the standard information provided in the generic AP1000 DCD. The design functions of the system associated with this request will continue to be maintained because the associated revisions to the Tier 1 information support the design function of the NI, annex building, turbine building, and radwaste building. Consequently, the safety impact that may result from any reduction in standardization is minimized, because the proposed design change does not result in a reduction in the level of safety. Based on the foregoing reasons, as required by 10 CFR Part 52.63(b)(1), the staff finds that the special circumstances outweigh any decrease in safety that may result from the reduction of standardization of the AP1000 design.

3.2.6 NO SIGNIFICANT REDUCTION IN SAFETY

This exemption would allow the implementation of changes discussed above. The exemption request proposes to depart from the certified design by allowing changes discussed above in the technical evaluation. The changes for consistency will not impact the functional capabilities of this system. The proposed changes will not adversely affect the ability of the NI, annex building, turbine building, and radwaste building to perform its design functions, and the level of safety provided by the current systems and equipment therein is unchanged. Therefore, based on the foregoing reasons and as required by 10 CFR 52.7, 10 CFR 52.98(f), and 10 CFR Part 52, Appendix D, Section VIII.A.4, the staff finds that granting the exemption would not result in a significant decrease in the level of safety otherwise provided by the design.

3.3 SUMMARY

In LAR 19-005, Revision 1, SNC proposed to make changes that would affect the COL Appendix C and corresponding PS-DCD Tier 1 information. None of the above proposed changes represent any technical changes to the design, construction, or operation of the plant. No SSC, design function, or analysis, as described in the UFSAR, is affected. The staff finds that all of the proposed changes are administrative and do not alter what the ITAAC are intended to verify. Additionally, the staff finds that the retention of the ITAAC Number and ITAAC Index Number, as well as a reference to the applicable amendment number for each consolidated ITAAC, will ensure that the tracking and close-out of those ITAAC that are referenced in previous SNC and NRC documentation will be accomplished. Therefore, within the scope of this license amendment, the NRC finds that 10 CFR 52.97(b) is satisfied. The NRC documented its review of the above changes in Section 3.2 of this safety evaluation and finds the changes acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations in 10 CFR 50.91(b)(2), on May 24, and October 25, 2019, the Georgia State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20, "Standards for Protection Against Radiation." The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding as published in the *Federal Register* on May 20, 2019 (84 FR 22907). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

Because the exemption is necessary to allow the changes proposed in the license amendment, and because the exemption does not authorize any activities other than those proposed in the license amendment, the environmental consideration for the exemption is identical to that of the license amendment. Accordingly, the exemption meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment needs to be prepared in connection with the issuance of the exemption.

6.0 CONCLUSION

The staff has determined that pursuant to Section VIII.A.4 of Appendix D to 10 CFR Part 52, the exemption (1) is authorized by law, (2) presents no undue risk to the public health and safety, (3) is consistent with the common defense and security, (4) presents special circumstances, and (5) does not reduce the level of safety at the licensee's facility. Therefore, the staff grants the licensee an exemption from the Tier 1 information requested by the licensee.

The staff has concluded, based on the considerations discussed in Section 3.1 that there is reasonable assurance that: (1) the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public. Therefore, the staff finds the changes proposed in this license amendment acceptable.

7.0 REFERENCES

1. Southern Nuclear Operating Company, Vogtle Electric Generating Plant Units 3 and 4, "Request for License Amendment and Exemption: Consolidation of Structural Building ITAAC (LAR 19-005)," March 29, 2019 (ADAMS Accession No. ML19088A274).
2. Southern Nuclear Operating Company, Vogtle Electric Generating Plant Units 3 and 4, "Revision to Request for License Amendment and Exemption: Consolidation of Structural Building ITAAC (LAR 19-005R1)," October 10, 2019 (ADAMS Accession No. ML19284C424).
3. Vogtle Electric Generating Plant Units 3 and 4, Updated Final Safety Analysis Report, Revision 6 and Tier 1, Revision 5, June 15, 2017 (ADAMS Accession No. ML17172A218).
4. AP1000 Design Control Document, Revision 19, June 13, 2011 (ADAMS Accession No. ML11171A500).
5. Combined License NPF-91 for Vogtle Electric Generating Plant Unit 3, Southern Nuclear Operating Company (ADAMS Accession No. ML14100A106).
6. Combined License NPF-92 for Vogtle Electric Generating Plant Unit 4, Southern Nuclear Operating Company (ADAMS Accession No. ML14100A135).



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 167 AND 165

TO THE COMBINED LICENSE NOS. NPF-91 AND NPF-92, RESPECTIVELY

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

GEORGIA POWER COMPANY

OGLETHORPE POWER CORPORATION

MEAG POWER SPVM, LLC

MEAG POWER SPVJ, LLC

MEAG POWER SPVP, LLC

CITY OF DALTON, GEORGIA

VOGTLE ELECTRIC GENERATING PLANT UNITS 3 AND 4

DOCKET NOS. 52-025 AND 52-026

1.0 INTRODUCTION

By letter dated March 29, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19088A274), the Southern Nuclear Operating Company, Inc. (SNC) requested that the U.S. Nuclear Regulatory Commission (NRC or Commission) amend Vogtle Electric Generating Plant (VEGP) Units 3 and 4, Combined License (COL) Nos. NPF-91 and NPF-92, respectively. The License Amendment Request (LAR) 19-005 requested changes to COL Appendix C and corresponding plant-specific design control document (PS-DCD) Tier 1 information to simplify and consolidate Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC), for certain buildings and structures, that are duplicative. Their consolidation is intended to improve the efficiency of the ITAAC completion and closure process. In addition, the proposed LAR would clarify that evaluations of thickness deviations will be included in the reconciliation and thickness reports in ITAAC acceptance criteria.

Pursuant to Section 52.63(b)(1) of Title 10 of the *Code of Federal Regulations* (10 CFR), SNC also requested an exemption from the provisions of 10 CFR Part 52, Appendix D, "Design Certification Rule for the AP1000 Design," Section III.B, "Scope and Contents." The requested exemption would allow a departure from the corresponding portions of the certified information

in Tier 1 of the generic DCD.¹ In order to modify the plant-specific design control document (PS-DCD) Tier 1 information, the NRC must find SNC's exemption request included in its submittal for the LAR to be acceptable. The staff's review of the exemption request, as well as the LAR, is included in this safety evaluation.

The Revision 1 to LAR 19-005, dated October 10, 2019, (ADAMS Accession No. ML19284C424) provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on May 20, 2019 (84 FR 22907).

2.0 REGULATORY EVALUATION

The VEGP COL Appendix C, Section 3.3, provides descriptions of AP1000 structures, including Nuclear Island (NI) structures such as containment internal structures, the shield building, and auxiliary building. COL Appendix C, Table 3.3-1, includes ITAAC for structural buildings. The ITAAC generally are for verifying structures and radiation shielding. Currently the ITAAC acceptance criteria for certain structures include both a structural reconciliation report and a structural thickness report, and for radiation shielding in the same building it may require a separate shielding thickness report. SNC stated that these ITAAC acceptance criteria are duplicative and have the potential to be combined. Other AP1000 structures which are not NI structures, such as the annex, turbine, and radioactive waste (Radwaste) buildings. These non-NI structures have ITAAC acceptance criteria requiring thickness reports for structural and/or shielding functions. The changes proposed for non-NI structures have a similar reason to be consolidated as described in the LAR. In addition, a note is proposed to be added to COL Appendix C, Table 3.3-1, to clarify that construction thickness deviations in NI structures, from those thicknesses specified in the table, are reconciled in the reconciliation reports in accordance with the ITAAC requirements.

The staff considered the following regulatory requirements in reviewing the LAR that included the proposed changes:

Appendix D, Section VIII.A.4 to 10 CFR Part 52 states that exemptions from Tier 1 information are governed by the requirements in 10 CFR 52.63(b)(1) and 10 CFR 52.98(f). It also states that the Commission will deny such a request if it finds that the design change will result in a significant decrease in the level of safety otherwise provided by the design.

Appendix D, Section VIII.B.5.a allows an applicant or licensee who references this appendix to depart from Tier 2 information, without prior NRC approval, unless the proposed departure involves a change to or departure from Tier 1 information, Tier 2* information, or the Technical Specifications, or requires a license amendment under paragraphs B.5.b or B.5.c of the section.

10 CFR 52.63(b)(1) allows the licensee who references a design certification rule to request NRC approval for an exemption from one or more elements of the certification information. The Commission may only grant such a request if it determines that the exemption will comply with

¹ While SNC describes the requested exemption as being from Section III.B of 10 CFR Part 52, Appendix D, the entirety of the exemption pertains to proposed departures from Tier 1 information in the PS-DCD. In the remainder of this evaluation, the NRC will refer to the exemption as an exemption from Tier 1 information to match the language of Section VIII.A.4 of 10 CFR Part 52, Appendix D, which specifically governs the granting of exemptions from Tier 1 information.

the requirements of 10 CFR 52.7, which, in turn, points to the requirements listed in 10 CFR 50.12 for specific exemptions. In addition to the factors listed in 10 CFR 52.7, the Commission shall consider whether the special circumstances outweigh any decrease in safety that may result from the reduction in standardization caused by the exemption. Therefore, any exemption from the Tier 1 information certified by Appendix D to 10 CFR Part 52 must meet the requirements of 10 CFR 50.12, 52.7, and 52.63(b)(1).

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

10 CFR 52.97(b) requires that the ITAAC included in the COL be necessary and sufficient to provide reasonable assurance that the facility has been constructed and will be operated in conformity with the license, the Atomic Energy Act of 1954, as amended (AEA), and the Commission's rules and regulations.

3.0 TECHNICAL EVALUATION

3.1 EVALUATION OF THE REQUESTED CHANGES

SNC states that the purpose of the LAR is to consolidate certain duplicative building and structure ITAAC to improve the efficiency of the ITAAC completion and closure process. Therefore, the information presented by SNC in this LAR was evaluated by the staff to confirm that the requested changes to the ITAAC Tables in Tier 1 do not substantively change the existing acceptance criteria. For the proposed ITAAC consolidation there have been no changes to the associated Updated Final Safety Analysis Report (UFSAR) design information for the current plant design, therefore, no structure, system, and component (SSC), design function, or analysis, as described in the UFSAR, is affected by the proposed changes.

In LAR 19-005, Revision 1, on page 4 of Enclosure 4, SNC indicated in the table that there are 16 ITAAC for structural buildings, which SNC divided into 4 categories based on whether the building is or is not in the NI. For each Category below, multiple ITAAC are proposed for consolidation to allow a single completion package for each consolidated ITAAC.

1. Nuclear Island ITAAC (Containment Internal Structures, Shield Building, Auxiliary Building – Non-Radiological areas, and Auxiliary Building – Radiological areas)
2. Annex Building ITAAC
3. Turbine Building ITAAC
4. Radwaste Building ITAAC (specifically the Waste Accumulation Room)

In addition, in Enclosure 5 of Revision 1, SNC included, for each consolidated ITAAC, a reference to the amendment number when this LAR is approved and implemented. The staff determined that SNC's statement that the retention of the ITAAC Number and ITAAC Index Number, as well as a reference to the applicable amendment number for each consolidated ITAAC, will ensure that the tracking and close-out of those ITAAC that are referenced in previous SNC and NRC documentation will be accomplished.

As explained below, the staff reviewed the proposed changes and determined that they do not change what the ITAAC are intended to verify. The proposed changes to the ITAAC tables, of Appendix C of the COL, are considered administrative in nature for consolidation purposes. There are no changes to the design, functional capabilities, method for performing a function, design analysis, safety analysis, or UFSAR Tier 2 information involved, and thus, the requested Tier 1 changes do not affect any design functions. The licensee stated in the submittal that during review of the Nonconformance & Disposition (N&D) Reports process, VEGP Units 3 and 4 licensing bases requirements associated with the nonconforming condition is performed. In addition to that if any changes to VEGP UFSAR, Tier 1, 2, or Tier 2*, information required to address the nonconformance, the processes for changes and departures described in 10 CFR Part 52, Appendix D, Section VIII, will be followed. Based on the licensee addressing the N&D Reports and the change process, the staff accepts the proposed changes to the table and ITAACs. Also, the proposed changes do not involve a change to the method of evaluation for establishing design bases or safety analyses. Finally, tests, experiments, and procedures described in the licensing basis were not changed by the proposed departures.

Category 1 - Nuclear Island ITAAC (Containment Internal Structures, Shield Building, Auxiliary Building – Non-Radiological, and Auxiliary Building – Radiological)

Several ITAAC verify that components within a given system demonstrate their safety or non-safety-related function by analysis. Each ITAAC require a report to be completed to close each ITAAC. The table below identifies the ITAAC acceptance criteria that are to be consolidated into one ITAAC report. SNC proposed to consolidate the ITAAC by moving the acceptance criteria from the ITAAC listed to the consolidated ITAAC, with the intended result being that reconciliation report will justify deviations from both structural and shielding perspectives.

ITAAC Change Table 1 for the Nuclear Island

Building/ Structure	Redundant Reports	ITAAC Index Number	ITAAC Number	Consolidated Report
Containment Internal Structure	Structural Thickness	764	3.3.00.02a.ii.a	Structural Reconciliation Report (760) 3.3.00.02a.i.a
	Shielding Thickness	777	3.3.00.03a	
Shield Building	Structural Thickness	765	3.3.00.02a.ii.b	Structural Reconciliation Report (761) 3.3.00.02a.i.b
	Shielding Thickness	778	3.3.00.03b	
Auxiliary Building (non- radiological)	Structural Thickness	766	3.3.00.02a.ii.c	Structural Reconciliation Report (762) 3.3.00.02a.i.c
	Shielding Thickness	779	3.3.00.03c	
Auxiliary Building (radiological)	Structural Thickness	767	3.3.00.02a.ii.d	Structural Reconciliation Report (763) 3.3.00.02a.i.d
	Shielding Thickness	780	3.3.00.03d	

These proposed changes would be reflected in changes to COL Appendix C, Table 3.3-1, to state that construction thickness deviations in NI structures, from this specified in the table, are reconciled in the reconciliation reports in accordance with ITAAC requirements.

The staff reviewed the proposed changes to consolidate these ITAAC and confirmed that the consolidated ITAAC require completion of the same processes and acceptance criteria as the existing ITAAC. Therefore, the staff confirmed that the requested changes are administrative and do not change what the existing ITAAC are intended to verify.

Category 2 – Annex Building ITAAC

In this category, two ITAAC acceptance criteria within the Annex Building demonstrate, by analysis, their function. Each ITAAC require a report to be completed to close each ITAAC. The table below identifies the two ITAAC acceptance criteria reports that are to be consolidated into one ITAAC report. SNC proposed to consolidate the ITAAC by moving the acceptance criteria from the individual ITAAC reports to the consolidated ITAAC report.

ITAAC Change Table 2 for the Annex Building

Building/ Structure	Redundant Reports	ITAAC Index Number	ITAAC Number	Consolidated Report
Annex Building	Structural Thickness	768	3.3.00.02a.ii.e	Structural Thickness Report (768) 3.3.00.02a.ii.e
	Shielding Thickness	781	3.3.00.04a	

In addition, SNC proposed that a note be added to COL Appendix C, Table 3.3-1, clarifying that the previously discussed annex building consolidated structural thickness report will also include evaluations of thickness deviations in accordance with ITAAC requirements. This proposed change would be reflected in a change to ITAAC Index Number 768 of COL Appendix C Table 3.3-6 by adding shielding requirements to the “Design Commitment.”

The staff reviewed the proposed changes to consolidate these ITAAC and confirmed that the consolidated ITAAC require completing the same processes and acceptance criteria as the existing ITAAC. Therefore, the staff confirmed that the requested changes are administrative and do not change what the existing ITAAC are intended to verify.

Category 3 – Turbine Building ITAAC

ITAAC 769 acceptance criteria requires a thickness report to verify the structural function. The acceptance criteria in ITAAC 769 would produce thickness reports for wall and floors, as applicable, to verify that they are consistent with thicknesses given in COL Appendix C, Table 3.3-1.

ITAAC Change Table 3 for the Turbine Building

Building/ Structure	Report	ITAAC Index Number	ITAAC Number
Turbine Building	Structural Thickness	769	3.3.00.02a.ii.f

For this change, SNC proposed that a note be added to COL Appendix C, Table 3.3-1, clarifying that the turbine building structural thickness report will also include evaluations of thickness deviations during construction and demonstrate there is no loss in the turbine building structural function in accordance with ITAAC requirements. The staff reviewed the proposed changes to this ITAAC and confirmed that the proposed ITAAC require completion of the same processes and have identical acceptance criteria as the existing ITAAC. Therefore, the staff confirmed that the requested changes are administrative and do not change what the existing ITAAC are intended to verify.

Category 4 – Radwaste Building ITAAC (Waste Accumulation Room)

ITAAC Index Number 782 associated with the waste accumulation room requires a shielding report to verify that the walls of the room provide radiation shielding during normal operations.

ITAAC Change Table 4 for Radwaste Building – Waste Accumulation Room

Building/ Structure	Report	ITAAC Index Number	ITAAC Number
Radwaste Building – Waste Accumulation Room	Shielding Thickness	782	3.3.00.04b

The acceptance criteria in ITAAC Index Number 782 would produce a shielding report to demonstrate that it is consistent with thicknesses given in COL Appendix C, Table 3.3-6. SNC proposed a change to the ITAAC Index Number 782 acceptance criteria to specify that the waste accumulation room thickness report includes evaluations of thickness deviations during construction and demonstrates that there is no loss in shielding. Because the proposed acceptance criteria include a report that evaluates thicknesses and thickness deviations and demonstrates no loss in shielding, SNC proposes to clarify the revised acceptance criteria to remove the word “minimum.” The staff reviewed the proposed changes to this ITAAC and confirmed that the proposed ITAAC require completion of the same processes and have identical acceptance criteria as the existing ITAAC. Therefore, the staff confirmed that the requested change is administrative and does not change what the existing ITAAC is intended to verify.

3.2 EVALUATION OF EXEMPTION

The regulations in Section III.B of Appendix D to 10 CFR Part 52 require a holder of a COL referencing Appendix D to 10 CFR Part 52 to incorporate by reference and comply with the

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

The Tier 1 information for which a plant-specific departure and exemption was requested is described above. The result of this exemption would be that SNC could implement modifications to Tier 1 information in the plant-specific DCD Tier and associated COL Appendix C. Pursuant to the provisions of 10 CFR 52.63(b)(1), an exemption from elements of the design as certified in the 10 CFR Part 52, Appendix D, design certification rule is requested for the involved Tier 1 information described and justified in LAR 19-005, Revision 1. This exemption is a permanent exemption limited in scope to the particular Tier 1 information specified.

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

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

3.2.1 AUTHORIZED BY LAW

The requested exemption would allow SNC to implement the amendment described above. This exemption is a permanent exemption limited in scope to particular Tier 1 information. Subsequent changes to this plant-specific Tier 1 information, and corresponding changes to Appendix C, or any other Tier 1 information would be subject to the exemption process specified in Section VIII.A.4 of Appendix D to 10 CFR Part 52 and the requirements of 10 CFR

52.63(b)(1). As stated above, 10 CFR Part 52, Appendix D, Section VIII.A.4 allows the NRC to grant exemptions from one or more elements of the Tier 1 information. The staff has determined that granting of SNC's proposed exemption will not result in a violation of the AEA, as amended, or the Commission's regulations. Therefore, as required by 10 CFR 50.12(a)(1), the exemption is authorized by law.

3.2.2 NO UNDUE RISK TO PUBLIC HEALTH AND SAFETY

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

3.2.3 CONSISTENT WITH COMMON DEFENSE AND SECURITY

The proposed exemption would allow changes as described above in the technical evaluation, thereby departing from the AP1000 certified (Tier 1) design information. The change does not alter or impede the design, function, or operation of any plant structures, systems, or components associated with the facility's physical or cyber security and, therefore, does not affect any plant equipment that is necessary to maintain a safe and secure plant status. In addition, the changes have no impact on plant security or safeguards. Therefore, as required by 10 CFR 50.12(a)(1), the staff finds that the common defense and security is not impacted by this exemption.

3.2.4 SPECIAL CIRCUMSTANCES

Special circumstances, in accordance with 10 CFR 50.12(a)(2), are present, in part, whenever application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule. The underlying purpose of the Tier 1 information is to ensure that a licensee will safely construct and operate a plant based on the certified information found in the AP1000 DCD, which was incorporated by reference into the VEGP Units 3 and 4 licensing basis. The proposed changes described in the above technical evaluation do not impact the ability of any SSCs to perform their functions or negatively impact safety.

Special circumstances are present in the particular circumstances discussed in LAR 19-005, Revision 1, because the application of the specified Tier 1 information is not necessary to achieve the underlying purpose of the rule. The proposed changes are equal or provide additional clarity to the existing requirement. The proposed changes do not affect any function or feature used for the prevention and mitigation of accidents or their safety analyses, and no safety-related SSC or function is involved. This exemption request and associated revisions to the Tier 1 information and corresponding changes to Appendix C demonstrate that the applicable regulatory requirements will continue to be met. Therefore, for the above reasons, the staff finds that the special circumstances required by 10 CFR 50.12(a)(2)(ii) for the granting of an exemption from the Tier 1 information exist.

3.2.5 SPECIAL CIRCUMSTANCES OUTWEIGH REDUCED STANDARDIZATION

This exemption would allow the implementation of changes to Tier 1 information in the plant-specific DCD and corresponding changes to COL Appendix C and corresponding plant-specific DCD Tier 1 information that are being proposed in the LAR. The justification provided in LAR 19-005, Revision 1, the exemption request, and the associated licensing basis mark-ups demonstrate that there is a limited change from the standard information provided in the generic AP1000 DCD. The design functions of the system associated with this request will continue to be maintained because the associated revisions to the Tier 1 information support the design function of the NI, annex building, turbine building, and radwaste building. Consequently, the safety impact that may result from any reduction in standardization is minimized, because the proposed design change does not result in a reduction in the level of safety. Based on the foregoing reasons, as required by 10 CFR Part 52.63(b)(1), the staff finds that the special circumstances outweigh any decrease in safety that may result from the reduction of standardization of the AP1000 design.

3.2.6 NO SIGNIFICANT REDUCTION IN SAFETY

This exemption would allow the implementation of changes discussed above. The exemption request proposes to depart from the certified design by allowing changes discussed above in the technical evaluation. The changes for consistency will not impact the functional capabilities of this system. The proposed changes will not adversely affect the ability of the NI, annex building, turbine building, and radwaste building to perform its design functions, and the level of safety provided by the current systems and equipment therein is unchanged. Therefore, based on the foregoing reasons and as required by 10 CFR 52.7, 10 CFR 52.98(f), and 10 CFR Part 52, Appendix D, Section VIII.A.4, the staff finds that granting the exemption would not result in a significant decrease in the level of safety otherwise provided by the design.

3.3 SUMMARY

In LAR 19-005, Revision 1, SNC proposed to make changes that would affect the COL Appendix C and corresponding PS-DCD Tier 1 information. None of the above proposed changes represent any technical changes to the design, construction, or operation of the plant. No SSC, design function, or analysis, as described in the UFSAR, is affected. The staff finds that all of the proposed changes are administrative and do not alter what the ITAAC are intended to verify. Additionally, the staff finds that the retention of the ITAAC Number and ITAAC Index Number, as well as a reference to the applicable amendment number for each consolidated ITAAC, will ensure that the tracking and close-out of those ITAAC that are referenced in previous SNC and NRC documentation will be accomplished. Therefore, within the scope of this license amendment, the NRC finds that 10 CFR 52.97(b) is satisfied. The NRC documented its review of the above changes in Section 3.2 of this safety evaluation and finds the changes acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations in 10 CFR 50.91(b)(2), on May 24, and October 25, 2019, the Georgia State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20, "Standards for Protection Against Radiation." The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding as published in the *Federal Register* on May 20, 2019 (84 FR 22907). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

Because the exemption is necessary to allow the changes proposed in the license amendment, and because the exemption does not authorize any activities other than those proposed in the license amendment, the environmental consideration for the exemption is identical to that of the license amendment. Accordingly, the exemption meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment needs to be prepared in connection with the issuance of the exemption.

6.0 CONCLUSION

The staff has determined that pursuant to Section VIII.A.4 of Appendix D to 10 CFR Part 52, the exemption (1) is authorized by law, (2) presents no undue risk to the public health and safety, (3) is consistent with the common defense and security, (4) presents special circumstances, and (5) does not reduce the level of safety at the licensee's facility. Therefore, the staff grants the licensee an exemption from the Tier 1 information requested by the licensee.

The staff has concluded, based on the considerations discussed in Section 3.1 that there is reasonable assurance that: (1) the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public. Therefore, the staff finds the changes proposed in this license amendment acceptable.

7.0 REFERENCES

1. Southern Nuclear Operating Company, Vogtle Electric Generating Plant Units 3 and 4, "Request for License Amendment and Exemption: Consolidation of Structural Building ITAAC (LAR 19-005)," March 29, 2019 (ADAMS Accession No. ML19088A274).
2. Southern Nuclear Operating Company, Vogtle Electric Generating Plant Units 3 and 4, "Revision to Request for License Amendment and Exemption: Consolidation of Structural Building ITAAC (LAR 19-005R1)," October 10, 2019 (ADAMS Accession No. ML19284C424).
3. Vogtle Electric Generating Plant Units 3 and 4, Updated Final Safety Analysis Report, Revision 6 and Tier 1, Revision 5, June 15, 2017 (ADAMS Accession No. ML17172A218).
4. AP1000 Design Control Document, Revision 19, June 13, 2011 (ADAMS Accession No. ML11171A500).
5. Combined License NPF-91 for Vogtle Electric Generating Plant Unit 3, Southern Nuclear Operating Company (ADAMS Accession No. ML14100A106).
6. Combined License NPF-92 for Vogtle Electric Generating Plant Unit 4, Southern Nuclear Operating Company (ADAMS Accession No. ML14100A135).