

## **Vogle PEmails**

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**From:** Hoellman, Jordan  
**Sent:** Tuesday, February 07, 2017 12:26 PM  
**To:** Vogle PEmails  
**Subject:** ITAAC Consolidation LAR Material - draft License Amendment Request  
**Attachments:** ND-17-0000\_LAR-17-006 Draft c.1.pdf

See attached for the materials for the upcoming discussion on the planned submittal of the ITAAC Consolidation LAR. The materials are not SUNSI.

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**From:** Hoellman, Jordan

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**Recipients Received:**

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Director  
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Southern Nuclear  
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February 17, 2017

Docket Nos.: 52-025  
52-026

ND-17-0000  
10 CFR 50.90  
10 CFR 52.63

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555-0001

## Draft Rev. C.1

Southern Nuclear Operating Company  
Vogtle Electric Generating Plant Units 3 and 4  
Request for License Amendment and Exemption Regarding  
ITAAC Consolidation (LAR-17-006)

Ladies and Gentlemen:

Pursuant to 10 CFR 52.98(c) and in accordance with 10 CFR 50.90, Southern Nuclear Operating Company (SNC) requests an amendment to the combined licenses (COLs) for Vogtle Electrical Generating Plant (VEGP) Units 3 and 4 (License Numbers NPF-91 and NPF-92, respectively). The proposed amendment would revise the licensing basis information to reflect changes to certain Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC). These changes are the result of consolidating a number of ITAAC.

The requested amendment proposes to depart from plant-specific Tier 1 information and associated COL Appendix C information.

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 also requested for the plant-specific DCD Tier 1 material departures.

Enclosure 1 provides the description, technical evaluation, regulatory evaluation (including the significant hazards consideration determination), and environmental considerations for the proposed changes.

Enclosure 2 provides the background and supporting basis for the requested exemption.

Enclosure 3 provides the proposed changes to the licensing basis documents.

This letter contains no regulatory commitments.

This letter, including enclosures, has been reviewed and confirmed to not contain security-related information.

SNC requests staff approval of the license amendment and associated exemption by xxxxx, to support ITAAC completion activities and to achieve the benefits gained from consolidation. SNC expects to implement the proposed amendment (through incorporation into the licensing basis documents) within 30 days of approval of the requested changes.

In accordance with 10 CFR 50.91, SNC is notifying the State of Georgia of this LAR by transmitting a copy of this letter and enclosures to the designated State Official.

Should you have any questions, please contact Mr. Fred Willis at (706) 848-6565.

Mr. B. H. Whitley states that he is the Regulatory Affairs Director of Southern Nuclear Operating Company, is authorized to execute this oath on behalf of Southern Nuclear Operating Company and to the best of his knowledge and belief, the facts set forth in this letter are true.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY

B. H. Whitley

BHW/xx/ljs

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 2017

Notary Public: \_\_\_\_\_

My commission expires: \_\_\_\_\_

- Enclosure 1: Vogtle Electric Generating Plant (VEGP) Units 3 and 4 - Request for License Amendment Regarding ITAAC Consolidation (LAR-17-006)
- Enclosure 2: Vogtle Electric Generating Plant (VEGP) Units 3 and 4 - Request for Exemption Regarding Tier 1 ITAAC Consolidation (LAR-17-006)
- Enclosure 3: Vogtle Electric Generating Plant (VEGP) Units 3 and 4 - Proposed Changes to the Licensing Basis Documents (LAR-17-006)

cc: (update prior to submittal xxx)

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**Southern Nuclear Operating Company  
Vogtle Electric Generating Plant Units 3 and 4**

**ND-17-0000**

**Enclosure 1**

**Vogtle Electric Generating Plant (VEGP) Units 3 and 4**

**Request for License Amendment Regarding  
ITAAC Consolidation  
(LAR-17-006)**

**(This Enclosure consists of 26 pages, including this cover page.)**



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  - 4.2. Precedent
  - 4.3. Significant Hazards Consideration
  - 4.4. Conclusions
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Pursuant to 10 CFR 52.98(f) and in accordance with 10 CFR 50.90, Southern Nuclear Operating Company (SNC) (the "Licensee") hereby requests an amendment to Combined License (COL) Nos. NPF-91 and NPF-92, for Vogtle Electric Generating Plant (VEGP) Units 3 and 4, respectively.

## 1. SUMMARY DESCRIPTION

The proposed changes would make non-technical changes to COL Appendix C (and corresponding plant-specific Tier 1) information to consolidate Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC), and to eliminate redundant Inspections, Tests and Analyses (ITA) and Acceptance Criteria (AC). The proposed changes consolidate the following six categories of ITAAC:

- "Reference" ITAAC, which provide a reference to another location, such as a section, subsection, or ITAAC table entry, for the ITA requirements and the associated AC.
- American Society of Mechanical Engineers (ASME) Component and Piping ITAAC, which verify the completion of design and construction activities in accordance with ASME Code requirements.
- "Located on the Nuclear Island" ITAAC, which verify the seismic Category I equipment or components are located on the seismic Category I Nuclear Island.
- Equipment Qualification ITAAC, which demonstrate the seismic Category I equipment can withstand seismic design basis loads without loss of safety function and the Class 1E equipment being qualified for a harsh environment can withstand the environmental conditions without loss of safety function.
- Motor-Operated and Check Valve Qualification ITAAC, which demonstrate the capability of motor-operated and check valves to operate under their design conditions.
- Instruments and Controls (I&C) and Electrical Functional Arrangement, which perform inspections of as-built systems to verify the as-built system conforms with the functional arrangement, as described in the Design Description.

The requested amendment proposes changes to COL Appendix C information, with corresponding changes to plant-specific DCD Tier 1 information. This enclosure request approval of the license amendment necessary to implement the COL Appendix C changes described below. Enclosure 2 requests the exemption necessary to implement the changes to the plant-specific DCD Tier 1 information.

## 2. DETAILED DESCRIPTION

Updated Final Safety Analysis Report (UFSAR) Tier 2 design descriptions are derived from plant design documents. 10 CFR Part 52, Appendix D, Section II.D states that Tier 1 design information is "derived from Tier 2 information." However, certain specific examples have been identified in which COL Appendix C (and plant-specific Tier 1) 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 ITAAC only, as the UFSAR design information is correct and consistent with the current plant design. Accordingly, no structure, system, or component (SSC), design function, or analysis, as described in the UFSAR, is affected by the proposed changes.

**Category 1 – “Reference” ITAAC**

Several ITAAC, referred to as “Reference” ITAAC, only provide a reference to another location, such as a section, subsection, or ITAAC table entry, for the ITA requirements and the associated AC. Reference ITAAC refer to the other ITAAC location in both the ITA and AC columns for the design commitment. This reference identifies that the ITAAC for that design commitment are satisfied when the referenced ITA are completed and the associated AC for the referenced sections, subsections, or table entries are satisfied. If a complete section is referenced, this indicates that each of the ITAAC in that section must be met before the referencing design commitment is satisfied.

Reference ITAAC do not require additional ITA to be performed, because the ITA are performed by the referenced ITAAC; however, the process of closing each ITAAC does require the submittal of documentation by the Licensee confirming closure of the Reference ITAAC. Additional NRC Staff resources are also required to verify closure of the Reference ITAAC by confirming the Referenced ITAAC is closed; thereby, increasing regulatory burden with no commensurate benefit to public health and safety. This process results in additional administrative burden, because the Referenced ITAAC must be closed regardless of the status of the referenced ITAAC in which they are included. Therefore, while the consolidation of redundant ITAAC reduces administrative burden on both the licensee and regulator, this action:

- Does not reduce the scope of ITA that are required to be performed by the ITAAC,
- 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.

COL Appendix C Table 2.1.1-1, ITAAC No. 3 (ITAAC 2.1.01.03) provides an example of a Reference ITAAC:

<b>Table 2.1.1-1 Inspections, Tests, Analyses, and Acceptance Criteria</b>		
<b>Design Commitment</b>	<b>Inspections, Tests, Analyses</b>	<b>Acceptance Criteria</b>
***	***	***
3. The FHS preserves containment integrity by isolation of the fuel transfer tube penetrating containment.	See ITAAC Table 2.2.1-3, items 1 and 7.	See ITAAC Table 2.2.1-3, items 1 and 7.
***	***	***

In the above excerpt from COL Appendix C (and plant-specific Tier 1) Table 2.1.1-1, for ITAAC No. 3 (ITAAC 2.1.01.03) both the ITA and AC refer to other ITAAC by stating, "See ITAAC Table 2.2.1-3, items 1 and 7." No additional Inspection, Testing and Analysis are required by this Reference ITAAC. Inspections performed by, and the completion and closure of ITAAC 2.2.01.03 and 2.2.01.07 satisfy this ITAAC. Thereby, this ITAAC can be deleted because the scope of this Reference ITAAC (2.1.01.03) is already consolidated into the referenced ITAAC (2.2.01.03 and 2.2.01.07).

ITAAC, listed below, are considered Reference ITAAC and are proposed to be removed from ITAAC Table.

ITAAC Index Number	ITAAC Number
3	2.1.01.03
27	2.1.02.07c
58	2.1.02.12a.vi
59	2.1.02.12a.vii
60	2.1.02.12a.viii
61	2.1.02.12a.ix
84	2.1.03.09c
104	2.2.01.06c
134	2.2.02.06c
143	2.2.02.07e.i
149	2.2.02.08c
173	2.2.03.07c
174	2.2.03.08a
234	2.2.04.07c
237	2.2.04.08b.i
239	2.2.04.08c
242	2.2.04.09b.i
264	2.2.05.06b
279	2.3.01.02
297	2.3.02.06c
298	2.3.02.07a

ITAAC Index Number	ITAAC Number
571	2.5.05.03c
583	2.6.01.03b
585	2.6.01.04b
600	2.6.03.03
632	2.6.05.04
641	2.6.09.01
642	2.6.09.03
643	2.6.09.04
688	2.7.01.06b
689	2.7.01.07
690	2.7.01.08a
691	2.7.01.08b
692	2.7.01.08c
702	2.7.02.02
708	2.7.03.02a
709	2.7.03.02b
713	2.7.04.02a
714	2.7.04.02b
715	2.7.04.02c
724	2.7.06.02.i
738	3.1.00.06

ITAAC Index Number	ITAAC Number
299	2.3.02.07b
300	2.3.02.07c
329	2.3.04.03
369	2.3.06.07c
370	2.3.06.08a
371	2.3.06.08b
400	2.3.07.06b
401	2.3.07.07a
404	2.3.07.07b.iii
405	2.3.07.07b.iv
406	2.3.07.07b.v
407	2.3.07.07b.vi
441	2.3.10.06a
442	2.3.10.06b
468	2.3.13.06c
469	2.3.13.07
478	2.3.14.02
482	2.3.15.02
520	2.5.01.05
528	2.5.02.05b

ITAAC Index Number	ITAAC Number
746	3.2.00.03.i
747	3.2.00.03.ii
748	3.2.00.03.iii
749	3.2.00.03.iv
750	3.2.00.03.v
753	3.2.00.06.i
754	3.2.00.06.ii
755	3.2.00.06.iii
771	3.3.00.02c
772	3.3.00.02d
773	3.3.00.02e
828	3.5.00.03
834	3.6.00.01.i
835	3.6.00.01.ii
836	3.6.00.01.iii
837	3.6.00.01.iv
838	3.6.00.01.v
839	3.6.00.01.vi
840	3.6.00.01.vii

**Category 2 – ASME Component and Piping ITAAC**

Several ITAAC (referred to as “ASME” ITAAC) verify the completion of design and construction activities in accordance with ASME Code requirements. The ASME ITAAC require completion of the same or a similar activity (N-5 Code Data Report and supporting documentation) in order to close each individual ITAAC. These ASME ITAAC are related to:

- As-built component design reports
- As-built piping design reports (including tis functional capability if specified)
- Component pressure boundary welds non-destructive examination (NDE)
- Piping pressure boundary welds NDE
- Component pressure boundary hydrostatic tests
- Piping pressure boundary hydrostatic test or pressure test

The process of completion of piping design reports are specifically described in the Nuclear Energy Institute (NEI) guidance document, NEI 08-01, Industry Guideline for the ITAAC Closure Process under 10 CFR Part 52, as endorsed by Regulatory Guide 1.215. The ITAAC Determination Basis provided in NEI 08-01 Example D46 for piping functional capability ITAAC closure is based on information provided in the piping system’s ASME Section III As-Built Piping Design Report. The ASME Section III As-Built Piping Design Report is a support document to the N-5 Code Data Report for the piping. Thus, a number of ITAAC can be consolidated once

the **applicable piping system N-5 Code Data Report** is completed and signed by the Authorized Nuclear Inspector (ANI).

The ASME component, NDE and Hydrostatic or pressure Test ITAAC Determination Basis described in the NEI 08-01 examples state that the component's Design Report, NDE Test Reports and Hydro Test Reports support completion of the applicable piping system N-5 Code Data Report signed by the ANI. In all cases, the NEI examples only list the piping System N-5 Code Data Report in the Attachment used in the ITAAC closure notification.

In addition, the documentation needed to demonstrate functional capability ITAAC include a subset of the above ITAAC completion documentation and similarly are part of the N-5 Code Data Report.

These ITAAC can be consolidated since the resulting evidence/documentation is the same for these ITAAC and the scope of inspections, testing and analysis required for each system will not change. Therefore, consolidation of ASME ITAAC in COL Appendix C (and plant-specific Tier 1):

- Does not reduce the scope of ITA that are required to be performed by the ASME ITAAC,
- Does not eliminate the need to perform required Inspection, Tests and Analysis for each impacted system, and
- Does not impact the scope of 10 CFR 52.103(g) finding to be made by the Commission, indicating that the acceptance criteria in the combined license are met.

Table 2.3.7-4, ITAAC Nos. 2.a, 2.b, 3, and 4 (ITAAC 2.3.07.02a, 2.3.07.02b, 2.3.07.03, and 2.3.07.04) provides an example of an ASME ITAAC:

Table 2.3.7-4 Inspections, Tests, Analyses, and Acceptance Criteria		
Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
***	***	***
2.a) The components identified in Table 2.3.7-1 as ASME Code Section III are designed and constructed in accordance with ASME Code Section III requirements.	Inspection will be conducted of the ASME as-built components as documented in the ASME design reports.	The ASME Code Section III design reports exist for the as-built components identified in Table 2.3.7-1 as ASME Code Section III.
2.b) The piping lines identified in Table 2.3.7-2 as ASME Code Section III are designed and constructed in	Inspection will be conducted of the as-built piping lines as documented in the ASME design reports.	The ASME Code Section III design reports exist for the as-built piping lines identified in Table 2.3.7-2

accordance with ASME Code Section III requirements.		as ASME Code Section III.
3. Pressure boundary welds in piping lines identified in Table 2.3.7-2 as ASME Code Section III meet ASME Code Section III requirements.	Inspection of the as-built pressure boundary welds will be performed in accordance with the ASME Code Section III.	A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds.
4. The piping lines identified in Table 2.3.7-2 as ASME Code Section III retain their pressure boundary integrity at their design pressure.	A hydrostatic test will be performed on the piping lines required by the ASME Code Section III to be hydrostatically tested.	A report exists and concludes that the results of the hydrostatic test of the piping lines identified in Table 2.3.7-2 as ASME Code Section III conform with the requirements of the ASME Code Section III.
***	***	***

As illustrated in the above ASME ITAAC, each of the design commitments is related to component, piping and pressure boundary. To close these ITAAC, an N-5 Code Data Report will be produced. As such, ITAAC 2.3.07.02a, 2.3.07.02b, 2.3.07.03, and 2.3.07.04 can be consolidated into a single ITAAC that can be closed by the applicable piping system N-5 Code Data Report. In this example, the proposed consolidated ASME ITAAC (2.3.07.02b) would read as follows:

Table 2.3.7-4 Inspections, Tests, Analyses, and Acceptance Criteria		
Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
***	***	***
2.b) The components, and piping identified in Tables 2.3.7-1 and 2.3.7-2, as ASME Code Section III are designed and installed in accordance with ASME Code Section III requirements.	Inspection of the as-built system will be performed	A report exists and concludes that the components and piping identified in Tables 2.3.7-1 and 2.3.7-2 are designed and installed in accordance with ASME Code Section III.
***	***	***

ITAAC, listed below, are considered ASME Component and Piping ITAAC and are proposed to be consolidated.

ITAAC Index Number	ITAAC Number	Consolidate With ITAAC Number (Index Number)
13	2.1.02.02a	2.1.02.02b (14)
15	2.1.02.03a	
16	2.1.02.03b	
17	2.1.02.04a	
18	2.1.02.04b	
22	2.1.02.05b	

73	2.1.03.04	2.1.03.02 (72)
74	2.1.03.05	

91	2.2.01.02a	2.2.01.02b (92) (note-scope of CNS ITAAC consolidation is being finalized xxx)
93	2.2.01.03a	
94	2.2.01.03b	
95	2.2.01.04a.i	
97	2.2.01.04b	

120	2.2.02.02a	2.2.02.02b (121)
122	2.2.02.03a	
123	2.2.02.03b	
124	2.2.02.04a	
125	2.2.02.04b	
129	2.2.02.05b	

159	2.2.03.02a	2.2.03.02b (160)
161	2.2.03.03a	
162	2.2.03.03b	
163	2.2.03.04a	
164	2.2.03.04b	
168	2.2.03.05b	

220	2.2.04.02a	2.2.04.02b (221)
222	2.2.04.03a	
223	2.2.04.03b	
224	2.2.04.04a	
225	2.2.04.04b	
229	2.2.04.05b	

253	2.2.05.02a	2.2.05.02b (254)
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255	2.2.05.03a	
256	2.2.05.03b	
257	2.2.05.04a	
258	2.2.05.04b	
262	2.2.05.05b	

285	2.3.02.02a	2.3.02.02b (286)
287	2.3.02.03a	
288	2.3.02.03b	
289	2.3.02.04a	
290	2.3.02.04b	

355	2.3.06.02a	2.3.06.02b (356)
357	2.3.06.03a	
358	2.3.06.03b	
359	2.3.06.04a	
360	2.3.06.04b	
364	2.3.06.05b	

392	2.3.07.02a	2.3.07.02b (393)
394	2.3.07.03	
395	2.3.07.04	

431	2.3.10.02a	2.3.10.02b (432)
433	2.3.10.03a	
434	2.3.10.03b	
435	2.3.10.04a	
436	2.3.10.04b	
440	2.3.10.05b	

460	2.3.13.03	2.3.13.02 (459)
461	2.3.13.04	

678	2.7.01.02a	2.7.01.02b (679)
680	2.7.01.03a	
681	2.7.01.03b	
682	2.7.01.04a	
683	2.7.01.04b	

**Category 3 – “Located on the Nuclear Island” ITAAC**

Multiple ITAAC are performed to verify that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function. Generally, these include ITAAC for (1) verifying the seismic Category I equipment or components are located on the Nuclear Island, which is a seismic Category I structure, (2) demonstrating the ability of the equipment or components to withstand seismic loads by type testing and/or analysis, (3) verifying the seismic qualification of equipment at its final location is bounded by previous type testing/analysis. Completion of the third type of ITAAC includes inspection of the equipment at its final location.

The ITAAC Determination Basis described in NEI 08-01 Example D-43 for Nuclear Island ITAAC closure is based on performing an inspection to verify equipment location (referred to as “located-on” ITAAC). The inspection to verify installed component location is also documented in the Equipment Qualification (EQ) As-built Reconciliation Report.

The companion ITAAC to the located-on ITAAC is NEI 08-01 Example D45 which confirms that a “report exists and concludes that the as-built components including anchorage are seismically bounded by the tested or analyzed conditions.” These ITAAC are closed by performing an inspection to confirm the satisfactory installation of the seismically qualified components. The inspection includes verification of equipment make/model/serial number; verification of as-designed equipment mounting orientation, anchorage and clearances; and verification of electrical and other interfaces. The documentation of installed configuration of seismically qualified components includes photographs and/or sketches of equipment/mounting/interfaces. The verification of installed component configuration is also documented in the Equipment Qualification (EQ) As-built Reconciliation Report. This information bounds the information required for Nuclear Island ITAAC. Therefore, consolidation of the “Located-on the Nuclear Island” ITAAC and reliance on subsequent ITAAC:

- Does not reduce the scope of the ITA that are required to be performed for the located-on ITAAC,
- Does not eliminate the need to perform required Inspection, Testing and Analysis for each impacted system, and
- Does not impact the scope of 10 CFR 52.103(g) finding to be made by the Commission, indicating that the acceptance criteria in the combined license are met.

Table 2.1.2-4, ITAAC No. 5.a (ITAAC 2.1.02.05a) provides an example of a Located-on ITAAC:

<b>Table 2.1.2-4 Inspections, Tests, Analyses, and Acceptance Criteria</b>		
<b>Design Commitment</b>	<b>Inspections, Tests, Analyses</b>	<b>Acceptance Criteria</b>
***	***	***
5.a) The seismic Category I equipment identified in Table 2.1.2-1 can withstand seismic design basis loads without loss	i) Inspection will be performed to verify that the seismic Category I equipment and valves identified in Table	i) The seismic Category I equipment identified in Table 2.1.2-1 is located on the Nuclear Island.

of safety function.	2.1.2-1 are located on the Nuclear Island.	
***	***	***

ITAAC, listed below, are considered “Located on Nuclear Island” ITAAC and are proposed not to be used.

ITAAC Index Number	ITAAC Number
19	2.1.02.05a.i
75	2.1.03.06.i
98	2.2.01.05.i
126	2.2.02.05a.i
165	2.2.03.05a.i
226	2.2.04.05a.i
259	2.2.05.05a.i
291	2.3.02.05.i
340	2.3.05.02.i
361	2.3.06.05a.i
396	2.3.07.05.i

ITAAC Index Number	ITAAC Number
437	2.3.10.05a.i
450	2.3.11.02.i
462	2.3.13.05.i
522	2.5.02.02.i
565	2.5.05.02.i
579	2.6.01.02.i
597	2.6.03.02.i
684	2.7.01.05.i
823	3.5.00.01.i

The following Located on ITAAC are consolidated into one since scope of ITAAC 631 also confirms location of light fixtures.

ITAAC Index Number	ITAAC Number	Consolidate With ITAAC Number (Index Number)
630	2.6.05.03.i	2.6.05.03.ii (631)

#### Category 4 – Equipment Qualification ITAAC

Multiple ITAAC (referred to as Equipment Qualification ITAAC) are performed for equipment qualification to demonstrate the seismic Category I equipment can withstand seismic design basis loads without loss of safety function and the Class 1E equipment being qualified for a harsh environment can withstand the environmental conditions without loss of safety function. In general, these include (1) an ITAAC for verifying the location to be on Nuclear Island (see scope ofr Category 3), (2) an ITAAC for performance of type seismic and harsh environment testing and/or analysis, and (3) a subsequent ITAAC for verifying the qualification of equipment

at its final location is bounded by previous type testing/analysis. Completion of the third type of ITAAC includes inspection of the equipment at its final location and verification that the qualification is bounded by the as-built location and conditions.

NEI 08-01 Example D44 provides the general format for the ITAAC Completion Notice associated equipment qualification type testing. The principal Closure Documentation used for completing these Equipment Qualification ITAAC is Equipment Qualification Data Package (EQDP) and Equipment Qualification Summary Report (EQSR).

NEI 08-01 Example D45 provides the general format for the ITAAC Completion Notices associated with verifying the as-built condition is bounded by the qualification. These ITAAC also depend on the same documentation (EQDP/EQSR) and also add the as-built consolidation / confirmation.

These ITAAC can be consolidated into one since they depend on the same set of documents (i.e., EQDP/EQSR) for closure plus any needed as-built verification. Consolidation will minimize the number of ITAAC without eliminating or reducing scope of ITAAC, therefore, consolidation of these Equipment Qualification ITAAC:

- Does not reduce the scope of the ITA that are required to be performed for the Equipment Qualification ITAAC,
- Does not eliminate the need to perform required Inspection, Tests and Analysis for each impacted system, and
- Does not impact the scope of 10 CFR 52.103(g) finding to be made by the Commission, indicating that the acceptance criteria in the combined license are met.

Table 2.3.7-4, ITAAC Nos. 5.a and 7.a (ITAAC 2.1.02.05a and 2.1.02.07.a) provides an example of an Equipment Qualification ITAAC:

<b>Table 2.1.2-4 Inspections, Tests, Analyses, and Acceptance Criteria</b>		
<b>Design Commitment</b>	<b>Inspections, Tests, Analyses</b>	<b>Acceptance Criteria</b>
***	***	***
5.a) The seismic Category I equipment identified in Table 2.1.2-1 can withstand seismic design basis loads without loss of safety function.	ii) Type tests, analyses, or a combination of type tests and analyses of seismic Category I equipment will be performed.	ii) A report exists and concludes that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function.
5.a) The seismic Category I equipment identified in Table 2.1.2-1 can withstand seismic design basis loads without loss of safety function.	iii) Inspection will be performed for the existence of a report verifying that the as-built equipment including anchorage is seismically bounded by the tested or	iii) A report exists and concludes that the as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.

	analyzed conditions.	
7.a) The Class 1E equipment identified in Table 2.1.2-1 as being qualified for a harsh environment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function.	i) Type tests, analyses, or a combination of type tests and analyses will be performed on Class 1E equipment located in a harsh environment.	i) A report exists and concludes that the Class 1E equipment identified in Table 2.1.2-1 as being qualified for a harsh environment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function.
7.a) The Class 1E equipment identified in Table 2.1.2-1 as being qualified for a harsh environment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function.	ii) Inspection will be performed of the as-built Class 1E equipment and the associated wiring, cables, and terminations located in a harsh environment.	ii) A report exists and concludes that the as-built Class 1E equipment and the associated wiring, cables, and terminations identified in Table 2.1.2-1 as being qualified for a harsh environment are bounded by type tests, analyses, or a combination of type tests and analyses.
***	***	***

In this example, the proposed consolidated Equipment Qualification ITAAC (2.1.02.05.a) would read as follows:

Table 2.1.2-4 Inspections, Tests, Analyses, and Acceptance Criteria		
Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
***	***	***
5.a) The seismic Category I and the Class 1E/harsh environment qualified equipment identified in Table 2.1.2-1 can withstand seismic design basis loads and normal and design basis accident environmental conditions without a loss of safety function	Type tests, analyses, or a combination of type tests and analyses of and inspection will be performed of as-built seismic Category I and Class 1E/ harsh environment qualified equipment.	A report exists and concludes that the Class 1E equipment identified in Table 2.1.2-1 (and the associated wiring, cables, and termination) as being qualified for a harsh environment or seismic Category I can withstand seismic design basis loads without loss of safety function, and the environmental conditions that would exist before, during, and following a design basis accident without loss of

		safety function for the time required to perform the safety function at its installed location.
***	***	***

ITAAC, listed below, are considered Equipment Qualification ITAAC and proposed to be consolidated:

ITAAC Index Number	ITAAC Number	Consolidate With ITAAC Number (Index Number)
20	2.1.02.05a.ii	2.1.02.05a.iii (21)
24	2.1.02.07a.i	
25	2.1.02.07a.ii	

76	2.1.03.06.ii	2.1.03.06.iii (77)
81	2.1.03.09a.i	
82	2.1.03.09a.ii	

99	2.2.01.05.ii	2.2.01.05.iii (100)
101	2.2.01.06a.i	
102	2.2.01.06a.ii	

105	2.2.01.06d.i	2.2.01.06d.ii (106)
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127	2.2.02.05a.ii	2.2.02.05a.iii (128)
131	2.2.02.06a.i	
132	2.2.02.06a.ii	

166	2.2.03.05a.ii	2.2.03.05a.iii (167)
170	2.2.03.07a.i	
171	2.2.03.07a.ii	

227	2.2.04.05a.ii	2.2.04.05a.iii (228)
231	2.2.04.07a.i	
232	2.2.04.07a.ii	

260	2.2.05.05a.ii	2.2.05.05a.iii (261)
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292	2.3.02.05.ii	2.3.02.05.iii (293)
294	2.3.02.06a.i	
295	2.3.02.06a.ii	

341	2.3.05.02.ii	2.3.05.02.iii (342)
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362	2.3.06.05a.ii	2.3.06.05a.iii (363)
366	2.3.06.07a.i	
367	2.3.06.07a.ii	

397	2.3.07.05.ii	2.3.07.05.iii (398)
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438	2.3.10.05a.ii	2.3.10.05a.iii (439)
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451	2.3.11.02.ii	2.3.11.02.iii (452)
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463	2.3.13.05.ii	2.3.13.05.iii (464)
465	2.3.13.06a.i	
466	2.3.13.06a.ii	

523	2.5.02.02.ii	2.5.02.02.iii (524)
525	2.5.02.03	
526	2.5.02.04	

566	2.5.05.02.ii	2.5.05.02.iii (567)
568	2.5.05.03a.i	
569	2.5.05.03a.ii	

580	2.6.01.02.ii	2.6.01.02.iii (581)
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598	2.6.03.02.ii	2.6.03.02.iii (599)
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685	2.7.01.05.ii	2.7.01.05.iii (686)
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824	3.5.00.01.ii	3.5.00.01.iii (825)
826	3.5.00.02.i	
827	3.5.00.02.ii	

**Category 5 – Valve Qualification ITAAC**

Several ITAAC (referred to as Valve Qualification ITAAC) are performed for motor-operated and check valve qualification to demonstrate the capability of the valve to operate under its design conditions. These ITAAC require inspection to show that the as-built motor-operated valves are bounded by the tested conditions and each motor-operated valve changes position under design conditions.

Similar to Equipment Qualification ITAAC (Category 4), in order to close these ITAAC, an Equipment Qualification Data Package (EQDP) and an Equipment Qualification Summary Report (EQSR) are generated along with a report demonstrating that as-built conditions are bounded by the testing.

These Valve Qualification ITAAC can be consolidated into one since they depend on the same set of documents (i.e., EQDP/EQSR) for closure and any needed as-built verification. Consolidation will minimize the number of ITAAC without eliminating or reducing scope of ITAAC, therefore, consolidation of these Valve Qualification ITAAC from COL Appendix C:

- Does not reduce the scope of the ITA that are required to be performed for the Valve Qualification ITAAC,
- Does not eliminate the need to perform required Inspection, Tests and Analysis for each impacted system, and
- Does not impact the scope of 10 CFR 52.103(g) finding to be made by the Commission, indicating that the acceptance criteria in the combined license are met.

Table 2.3.7-4, ITAAC Nos. 12.a and 12.b (ITAAC 2.1.02.12a and 2.1.02.12.b) provides an example of an example of a Valve Qualification ITAAC:

<b>Table 2.1.2-4 Inspections, Tests, Analyses, and Acceptance Criteria</b>		
<b>Design Commitment</b>	<b>Inspections, Tests, Analyses</b>	<b>Acceptance Criteria</b>
***	***	***
12.a) The automatic depressurization valves identified in Table 2.1.2-1 perform an active safety-related function to change position as indicated in the table.	i) Tests or type tests of motor-operated valves will be performed that demonstrate the capability of the valve to operate under its design conditions.	i) A test report exists and concludes that each motor-operated valve changes position as indicated in Table 2.1.2-1 under design conditions.
12.a) The automatic depressurization valves identified in Table 2.1.2-1 perform an active safety-related function to change position as indicated in the	ii) Inspection will be performed for the existence of a report verifying that the as-built motor-operated valves are bounded by the tests or type tests.	ii) A report exists and concludes that the as-built motor-operated valves are bounded by the tests or type tests.



table.		
***	***	***

In this example, the proposed consolidated Valve Qualification ITAAC (2.1.02.12.a) would read as follows:

Table 2.1.2-4 Inspections, Tests, Analyses, and Acceptance Criteria		
Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
***	***	***
12.a) The automatic depressurization valves identified in Table 2.1.2-1 perform an active safety-related function to change position as indicated in the table.	ii) Tests or type tests of motor-operated valves will be performed that demonstrate the capability of the valve to operate under its design conditions and inspection will be performed for the existence of a report verifying that the as-built motor-operated valves are bounded by the tests or type tests.	ii) A report exists and concludes that each motor-operated valve changes position as indicated in Table 2.1.2-1 under design conditions and the as-built motor-operated valves are bounded by the tests or type tests.
***	***	***

In the above example, completion of the ITAAC 12.b would require use of EQDP / EQSR from the ITAAC 12.a in order to demonstrate as-built is bounded.

ITAAC, listed below, are considered Valve Qualification ITAAC and proposed to be consolidated:

ITAAC Index Number	ITAAC Number	Consolidated ITAAC Number (Index Number)
53	2.1.02.12a.i	2.1.02.12a.ii (54)
56	2.1.02.12a.iv	2.1.02.12a.v (57)
114	2.2.01.11a.i	2.2.01.11a.ii (115)
154	2.2.02.11a.i	2.2.02.11a.ii (155)
214	2.2.03.12a.i	2.2.03.12a.ii (215)
248	2.2.04.12a.i	2.2.04.12a.ii (249)
309	2.3.02.11a.i	2.3.02.11a.ii (310)
384	2.3.06.12a.i	2.3.06.12a.ii (385)

**Category 6 - I&C and Electrical Functional Arrangement**

Multiple ITAAC (referred to as “Functional Arrangement” ITAAC) require the performance inspections of the as-built system to verify the as-built system conforms with the functional arrangement as described in the Design Description. The Design Description, in general, includes a simplistic figure and/or a table of components. The inspection will demonstrate that the components exist with no demonstration of functionality. These systems also include other ITAAC which demonstrate functionality of the system (generally through testing) and include the same components. As such, the scope of functional arrangement ITAAC is bounded by the ITAAC demonstrating the functionality and these ITAAC are not necessary. This change effects I&C and Electrical Functional Arrangement ITAAC only. The functional testing ITAAC continue to verify functional arrangement of these systems, therefore, reliance on the subsequent ITAAC:

- Does not reduce the scope the ITA that are required to be performed for the Functional Arrangement ITAAC,
- Does not eliminate the need to perform required Inspection, Tests and Analysis for each impacted system, and
- Does not impact the scope of 10 CFR 52.103(g) finding to be made by the Commission, indicating that the acceptance criteria in the combined license are met.

Table 2.1.2-4, ITAAC No. 1 (ITAAC 2.1.02.01) provides an example of a Functional Arrangement ITAAC:

<b>Table 2.1.2-4 Inspections, Tests, Analyses, and Acceptance Criteria</b>		
<b>Design Commitment</b>	<b>Inspections, Tests, Analyses</b>	<b>Acceptance Criteria</b>
***	***	***
1. The functional arrangement of the DAS is as described in the Design Description of this Section 2.5.1.	Inspection of the as-built system will be performed.	The as-built DAS conforms with the functional arrangement as described in the Design Description of this Section 2.5.1.
***	***	***

The above Functional Description ITAAC Design Description does not include a figure showing the functional arrangement. The table referenced in the Design Description provides the component names and location. The functionality is demonstrated by testing ITAAC.

ITAAC, listed below, are considered Functional Arrangement ITAAC and proposed not to be used:

<b>ITAAC Index Number</b>	<b>ITAAC Number</b>	<b>ITAAC Demonstrating Functionality</b>	
505	2.5.01.01	506	2.5.01.02a
		507	2.5.01.02b
		508	2.5.01.02c.i
		509	2.5.01.02c.ii
		510	2.5.01.02d

521	2.5.02.01	527	2.5.02.05a
		529	2.5.02.06a.i
		530	2.5.02.06a.ii
		531	2.5.02.06b
		532	2.5.02.06c.i
		533	2.5.02.06c.ii
		539	2.5.02.08a.i
		540	2.5.02.08a.ii
		541	2.5.02.08a.iii
		543	2.5.02.08b.ii
		545	2.5.02.09a
		546	2.5.02.09b
		547	2.5.02.09c
548	2.5.02.09d		

554	2.5.03.01	555	2.5.03.02
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592	2.6.02.01	593	2.6.02.02a
		594	2.6.02.02b
		595	2.6.02.02c

596	2.6.03.01	601	2.6.03.04a
		603	2.6.03.04c
		604	2.6.03.04d
		605	2.6.03.04e
		606	2.6.03.04f
		607	2.6.03.04g
		608	2.6.03.04h
		609	2.6.03.04i

		876	2.6.03.04j
		610	2.6.03.05a
		611	2.6.03.05b
		612	2.6.03.05c
		613	2.6.03.05d.i
		614	2.6.03.05d.ii

627	2.6.05.01	628	2.6.05.02.i
		633	2.6.05.05.i
		634	2.6.05.05.ii
		635	2.6.05.06.i
		636	2.6.05.06.ii

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The following will be included in EP LAR and is included here for information only – to be removed from formal submittal xxxxx

**Category xxxx/EP– DCD/COL Redundant ITAAC**

- ITAAC 733 is bounded by ITAAC 849 (TSC Square Feet)
- ITAAC 734 is bounded by ITAACs 847 & 848. (Communications)
- ITAAC 736 is bounded by ITAACs 847 & 848. (Communications)
- ITAAC 850 is bounded by ITAACs 847 & 848. (Communications)
- ITAAC 857 is bounded by ITAACs 847 & 848. (Communications)
- ITAAC 851 is bounded by ITAACs 846 (Plant Parameter Displays)
- ITAAC 858 is bounded by ITAACs 846 (Plant Parameter Displays)
- ITAAC 865 is not a [J.1] criteria. It is also bounded by ITAAC 870 (Command and Control)
- ITAAC 867 is not a [J.1] criteria. It is also bounded by ITAAC 870 (Round the Clock Staffing)
- ITAAC 868 is not a [J.1] criteria. It is also bounded by ITAAC 870 (Assembly and Accountability)
- ITAAC 869 is not a [J.1] criteria. But it is not covered by any other ITAAC. It should be under ITAAC 870

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Overall Technical Evaluation:

The subject ITAAC are being consolidated because the ITA and AC for these ITAAC are duplicative of other ITAAC and/or the subject ITAAC cannot be closed until a subsequent ITAAC is closed. In many cases, as demonstrated above, the ITAAC Completion Notices (ICNs) would be redundant and contain the same documentation. This was reinforced by NRC staff during public meetings held regarding previously submitted ICNs and Uncompleted ITAAC Notifications (UINs) for VEGP Units 3 and 4. 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, consolidation and elimination of redundant ITAAC reduces redundant documentation by reducing the number of ICNs and associated processing documentation in accordance with the Paperwork Reduction Act of 1980.

The proposed ITAAC consolidation continues to meet the intent of 10 CFR 50 Appendix D and COL Appendix C (and plant-specific Tier 1) design descriptions, tables and figures and make no technical changes to these design descriptions, tables, and figures, because no SSC design function or analysis as described in the UFSAR is 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. Accordingly, application of the generic certified design information in Tier 1 as required by 10 CFR 52, Appendix D, Section III.B, in the particular circumstances discussed in this license amendment request is not necessary to achieve the underlying purpose of the rule. The proposed changes do not involve 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.

Summary

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 should not change.

### **Licensing Basis Change Descriptions**

The proposed ITAAC consolidation are described above. No other changes to COL or UFSAR is proposed.

## **3. TECHNICAL EVALUATION**

Contained within Section 2 of this License Amendment Request.

## **4. REGULATORY EVALUATION**

### **4.1 Applicable Regulatory Requirements/Criteria**

10 CFR 52.98(f) requires NRC approval for any modification to, addition to, or deletion from the terms and conditions of a 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**

No precedent is identified.

### **4.3 Significant Hazards Consideration**

The proposed changes would amend the Combined Licenses (COLs) by making various non-technical changes to COL Appendix C information. The proposed changes would consolidate some ITAAC and remove redundant ITAAC within COL Appendix C. No structure, system, or component (SSC), design function or analysis as described in the UFSAR would be affected. For each of the COL Appendix C changes proposed, the exemption necessary to implement the corresponding change to plant-specific Tier 1 is also requested in Enclosure 2. There is no UFSAR Tier 2 change associated with the proposed COL Appendix C changes.

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 COL Appendix C (and plant-specific Tier 1) change does not involve a technical change, i.e., there is no design parameter or requirement, calculation, analysis, function, or qualification change. 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 COL Appendix C (and plant-specific Tier 1) change would not affect the design or function of any SSC, but will instead provide consistency between the SSC designs and functions currently presented in the UFSAR and COL Appendix C (and plant-specific Tier 1) information. The proposed changes do 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.

**4.3.3 Does the proposed amendment involve a significant reduction in a margin of safety?**

Response: No

The proposed COL Appendix C plant-specific Tier 1 change is considered non-technical for reasons discussed above, thus 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 reduce the 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. The above evaluations demonstrate that the requested changes can be accommodated without an increase in the probability or consequences of an accident previously evaluated, without creating the possibility of a new or different kind of accident from any accident previously evaluated, and without a significant reduction in a margin of safety. Having arrived at negative declarations with regard to the criteria of 10 CFR 50.92, this assessment determined that the requested change does not involve a Significant Hazards Consideration.

### 5. ENVIRONMENTAL CONSIDERATION

The proposed changes would revise the Combined Licenses (COLs) by making various non-technical changes to COL Appendix C information. The proposed changes would consolidate a number of ITAAC to remove redundancy and improve efficiency of ITAAC completion and closure. For each of the COL Appendix C changes, the exemption necessary to implement the corresponding changes in plants specific Tier 1 is requested in Enclosure 2. There is no UFSAR Tier 2 change associated with the proposed changes.

A review has determined that the anticipated construction and operational effects of the proposed amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.21 and 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 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 amendment consolidates a number of ITAAC in COL Appendix C. 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 amendment consolidates a number of COL Appendix C ITAAC. 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.

## **6. REFERENCES**

None.

**Southern Nuclear Operating Company**

**ND-17-0000**

**Enclosure 2**

**Vogtle Electric Generating Plant Units 3 and 4**

**Exemption Request Regarding ITAAC Consolidation**

**(LAR-17-006)**

(This Enclosure consists of 7 pages, including this cover page.)

## 1.0 Purpose

Southern Nuclear Operating Company (SNC) 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 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 Tier 1 information for which a plant-specific departure and exemption is being requested includes various information specified in Tier 1 ITAAC Tables as described below.

[Placeholder - Insert listing after reviews are completed  
and scope finalized]

- Tier 1 Table xxxx or see attachment (Consult with Haggerty)
  - Revise ITAAC xxxx
  - Revise ITAAC yyy Acceptance Criteria

This request will provide for the application of the requirements for granting exemptions from design certification information, as specified in 10 CFR Part 52, Appendix D, Section VIII.A.4, 10 CFR §52.63, §52.7, and §50.12.

## 2.0 Background

The Licensee is the holder of Combined License Nos. NPF-91 and NPF-92, which authorize construction and operation of two Westinghouse Electric Company AP1000 nuclear plants, named Vogtle Electric Generating Plant (VEGP) Units 3 and 4, respectively.

During the preparation, submittal of the ITAAC Completion Notices (ICN), and review of the ICNs by the Commission, efficiencies and changes to ITAAC were identified. This activity requests exemption from the Generic DCD Tier 1 tables which support the associated COL Appendix C ITAAC.

An exemption from elements of the AP1000 certification (Tier 1) design information to allow a departure from the design description and ITAAC is requested.

### **3.0 Technical Justification of Acceptability**

An exemption is requested to depart from AP1000 generic Design Control Document (DCD) Tier 1 material in regard to the AP1000 by consolidating various ITAAC. 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 to the description information presented in plant-specific Tier 1 are at a level of detail that is consistent with the information currently provided therein.

The proposed changes neither adversely impacts the ability to meet the design functions of the structures, systems, and components (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 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.

### **4.0 Justification of Exemption**

10 CFR 52, Appendix D, Section VIII.A.4 and 10 CFR 52.63(b)(1) govern the issuance of exemptions from elements of the certified design information for AP1000 nuclear power plants. Since SNC has identified changes to the Tier 1 information related to the structures as a result of further design review activities, an exemption to the certified design information in 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 to allow changes to the description of the structures, systems, and components ITAAC 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 information to depart from the AP1000 certified design information. The plant-specific DCD Tier 1 information will reflect the approved licensing basis for VEGP Units 3 and 4, and will maintain a consistent level of detail in COL Appendix C. Therefore, the affected ITAAC in Tier 1 of the plant-specific DCD and Site Specific ITAAC will serve their required purpose. These changes will not impact the ability of the SSCs to perform their design functions. Because the changes will not alter the operation of any plant equipment or systems, these changes do not present an undue risk from existing equipment or systems. These changes do not add any new equipment or system interfaces to the current plant design. 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 exemption from the requirements of 10 CFR 52, Appendix D, Section III.B would allow editorial and consistency changes to elements of the plant-specific Tier 1 DCD, thereby departing from the AP1000 certified design information. The proposed exemption will enable performance of the ITAAC associated with these changed elements by reflecting consistent completion and closure of these ITAAC. The exemption does not alter or impede the design, function, or operation of any plant SSCs associated with the facility's physical or cyber security, and therefore does not affect any plant equipment that is necessary to maintain a safe and secure plant status. The proposed exemption has no impact on plant security or safeguards. 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 "[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 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 Unit 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 correct consolidate ITAAC maintain the design functions of these 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 and the understanding that these changes support the actual system functions, it is likely that this exemption will be requested by other AP1000 licensees. However, if this is not the case, the special circumstances continue to outweigh any decrease in safety from the reduction in standardization because the design functions of the systems associated with this request will continue to be maintained. This exemption request and the associated marked-up tables and figure 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 exemption revises the plant-specific DCD Tier 1 information by consolidating some of in plant-specific DCD Tier 1 and Plant Specific ITAAC. The consolidation will not impact the functional capabilities of these components. Because the consolidation of ITAAC associated with this exemption request will not modify the design or operation of any systems or equipment, there are no new failure modes introduced by these changes and the level of safety provided by the current structures, systems, and components and the systems and equipment contained therein will be unchanged. Because the proposed changes to the structure, system, or component descriptions 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 and the systems and equipment contained therein is unchanged, it is concluded that the description 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 Exemptions**

None.

## **7.0 Environmental Consideration**

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed exemption does not involve (i) a significant hazards consideration, (ii) a significant change in the types or a significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Specific justification is provided in Section 5 of the corresponding amendment request. Accordingly, the proposed exemption meets the eligibility criterion 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 need be prepared in connection with the proposed exemption.

## **8.0 Conclusion**

The proposed changes to Tier 1 are necessary to correct information in design descriptions in plant-specific DCD Tier 1. The exemption request meets the requirements of 10 CFR 52.63, 10 CFR 52.7, 10 CFR 50.12, 10 CFR 51.22, and 10 CFR 52 Appendix D. 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, presents special circumstances, does not present a significant decrease in safety as a result of a reduction in standardization, and meets the eligibility requirements for categorical exclusion.

## **9.0 References**

None

**Southern Nuclear Operating Company**

**ND-17-0000**

**Enclosure 3**

**Vogtle Electric Generating Plant Units 3 and 4**

**Licensing Basis Documents - Proposed Changes**

**(LAR-17-006)**

**(Publicly Available Information)**

**Insertions Denoted by Blue Underline and Deletions by ~~Red~~ Strikethrough  
Omitted text is identified by three asterisks ( \* \* \* )**

**(Note that the sheet numbers and the total number of sheets for the marked-up Tables provided in this Enclosure may be changed by the incorporation of this and other departures. These changes are considered editorial and do not require evaluation in this submittal.)**

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



ND-17-xxxx

Enclosure 3

Proposed Changes that Differ from the Duke Submittals for Information (LAR-17-006)

**Tier 1 Tables XXXXX**

**(This change also applies to VEGP Unit 3 and Unit 4 COLs, Appendix C)**