Vogtle PEmails

From: Habib, Donald
Sent: Tuesday, June 4, 2019 9:27 AM
To: Vogtle PEmails
Subject: Draft SNC LAR-19-002 l for June 13 Public Meeting
Attachments: LAR-19-002 - Functional Arrangement ITAAC DRAFT.pdf

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From: Leighty, Steven <sleighty@southernco.COM>
Sent: Monday, June 03, 2019 3:59 PM
To: Patel, Chandu <Chandu.Patel@nrc.gov>; Habib, Donald <Donald.Habib@nrc.gov>
Cc: Arafeh, Yasmeen N. <YNARAFEH@southernco.com>
Subject: [External_Sender] Draft SNC LAR-19-002 l for June 13 Public Meeting

Don/Chandu,

Attached is the draft of SNC LAR-19-002, Functional Arrangement ITAAC Optimization, in support of the presubmittal meeting on June 13. If you have any questions, please let me know.

Thanks,

Steve Leighty | Southern Nuclear
Licensing Supervisor | Vogtle 3&4
706.848.6790 | sleighty@southernco.com

From: Leighty, Steven
Sent: Friday, May 31, 2019 1:49 PM
To: Patel, Chandu <Chandu.Patel@nrc.gov>; Habib, Donald <Donald.Habib@nrc.gov>
Cc: Arafeh, Yasmeen N. <YNARAFEH@southernco.com>
Subject: Presentation Material for June 13 Public Meeting

Chandu/Don,

Attached is the presentation material for the June 13 public meeting. The Functional Arrangement ITAAC Draft LAR will be sent shortly. Below are the four topics for discussion. The list of SNC attendees in person for the meeting is provided below as well. Let me know if you have any questions.

Meeting Topics:

- FLEX Update: Staffing and Communications (45 minutes)
- Potential scenarios for time between ITAAC all complete letter and 103(g) (60 minutes)
- Pre-submittal for Functional Arrangement ITAAC LAR (45 minutes)
- Technical exchange for non-safety significant ITAAC optimization (60 minutes)

SNC Attendees in person:

- Michael Yox
- Tom Petrak
- Steven Leighty

- Kevin Durrwachter
- Paul Marcotte
- Randy Bunt

Thanks,

Steve Leighty

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"Vogtle PEmails" <Vogtle.PEmails@nrc.gov>
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Docket Nos.: 52-025
52-026

ND-19-XXXX
10 CFR 50.90
10 CFR 52.63

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

Southern Nuclear Operating Company
Vogtle Electric Generating Plant Units 3 and 4
Request for License Amendment and Exemption:
Functional Arrangement ITAAC Optimization (LAR-19-002)

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 Electric Generating Plant (VEGP) Units 3 and 4 (License Numbers NPF-91 and NPF-92, respectively). The requested amendment proposes changes to Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) in COL Appendix C, with corresponding changes to the associated plant-specific Tier 1 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 Design Control Document (DCD) Tier 1 material departures.

The requested amendment proposes changes to COL Appendix C (and plant-specific Tier 1) to remove a number of functional arrangement ITAAC, whose design commitments are completed via other ITAAC or otherwise proven unnecessary.

Enclosure 1 provides the description, technical evaluation, regulatory evaluation (including the Significant Hazards Consideration Determination), and environmental considerations for the proposed changes in the License Amendment Request (LAR).

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

Enclosure 3 provides markups depicting the requested changes to COL Appendix C and corresponding changes to plant-specific Tier 1.

SNC requests staff approval of the license amendment by December 31, 2019 to achieve the benefits gained from the optimization of ITAAC proposed by this LAR. 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.

This letter contains no regulatory commitments. This letter has been reviewed and confirmed to not contain security-related information.

Should you have any questions, please contact Mr. Steven Leighty at 706-848-6790.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY

M. J. Yox

MJY/CMP/SFR

Enclosures:

1) Vogtle Electric Generating Plant (VEGP) Units 3 and 4 - Request for License Amendment: Functional Arrangement ITAAC Optimization (LAR-19-002)

2) Vogtle Electric Generating Plant (VEGP) Units 3 and 4 – Exemption Request: Functional Arrangement ITAAC Optimization (LAR-19-002)

3) Vogtle Electric Generating Plant (VEGP) Units 3 and 4 - Proposed Changes to the Licensing Basis Documents (LAR-19-002)

cc:
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Mr. D. H. Jones (w/o enclosures)
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File AR.01.02.06

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Southern Nuclear Operating Company

ND-19-XXXX

Enclosure 1

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

Request for License Amendment:

Functional Arrangement ITAAC Optimization (LAR-19-002)

(This Enclosure consists of 70 pages, including this cover page.)

Table of Contents

Pursuant to 10 CFR 52.98(c), and in accordance with 10 CFR 50.90, Southern Nuclear Operating Company (SNC) (the "Licensee") hereby requests an amendment to Combined License (COL) 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 changes to COL Appendix C (and corresponding plant-specific Tier 1) information. The changes include removing Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) for the functional arrangement of systems, by showing that the ITAAC design commitment (DC) is verified by other ITAAC or is otherwise unnecessary.

The requested amendment proposes changes to COL Appendix C information, with corresponding changes to plant-specific DCD Tier 1 information, as appropriate. This enclosure requests 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 AND TECHNICAL EVALUATION

The functional arrangement ITAAC require the performance of 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 the key functions of the system, and in some instances references a simplistic figure and/or a table of components. The inspection for the functional arrangement ITAAC would demonstrate that the components exist with no demonstration of functionality. These systems may also include other ITAAC that demonstrate functionality of the system or verify that they are functionally arranged, including the same components and piping identified in the figures and / or tables referenced in the ITAAC. Testing and inspection of the components, piping, and interfaces through these other ITAAC confirms existence of the components in their correct arrangement. As such, the scope of functional arrangement ITAAC is bounded by the ITAAC demonstrating the functionality, or otherwise verified by other means, and the functional arrangement ITAAC in and of themselves do not verify any unique design attributes. Functional arrangement ITAAC have been identified in COL Appendix C (and plant-specific Tier 1) to contain redundant requirements with other ITAAC. For each of these functional arrangement ITAAC proposed to be removed, the Tier 1 Design Description and associated UFSAR design information remains consistent with the current plant design, so no structure, system, or component (SSC), design function, or analysis, as described in the UFSAR, is affected by the proposed changes.

Regulatory Guide 1.206, Revision 0, defines functional arrangement ITAAC as "the physical arrangement of systems and components to provide the service for which the system is intended and that is described in the ITAAC design description and as shown in the figures" (Reference 1). Appendix C of the Vogtle 3 & 4 COLs gives a similar definition, as "the physical arrangement of systems and components to provide the service for which the system is intended, and which is described in the system design description." NEI 08-01 Revision 5 goes into further detail on the functional arrangement ITAAC, stating that the purpose of the ITAAC is two-fold: "(1) that components are physically arranged as shown in any referenced figure, and located as identified in any referenced table; and (2) that system components

identified in the Tier 1 Design Descriptions are physically arranged as specified by the design" (Reference 2).

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." UFSAR subsection 14.3.2.2 discusses that the intent of ITAAC is "to define activities that will be undertaken to verify the as-built system conforms with the design features and characteristics defined in the design description". When other ITAAC verify the functional arrangement of the system, i.e. no additional information is verified by completion of the functional arrangement ITAAC, the functional arrangement ITAAC are not necessary.

There are three categories of ITAAC whose ITA can verify the design features and characteristics of a system: ASME ITAAC, EQ ITAAC, and functional testing ITAAC.

For the ITAAC that are completed under the American Society of Mechanical Engineers Boiler & Pressure Vessel (ASME B&PV) Code Section III, hereafter called "the ASME Code", certain requirements for the documents produced to satisfy the AC need to be met. The ASME Code is a standard for constructing safe, reliable nuclear plants. It is a mature set of rules that has evolved over the years. This Code has come to represent one of the highest standards of quality to which a nuclear plant is constructed. The ASME Code Subsection NCA-9000 defines Data Report as a document that certifies that an item was construction in accordance with the requirements of this Section. NCA-9000 definition of construction is an all-inclusive term comprising materials, design, fabrication, examination, testing, inspection, and certifications required in the manufacture and installation of an item. By adding these two definitions one can determine that the N-5 Data Report is a document that certifies that materials, design, fabrication, examination, testing and inspection of an item are in accordance with the requirements of the ASME Code.

Per the UFSAR Subsection 3.6.2.5, the ASME Code requires that each plant have a Design Report for the piping system that includes as-built information. The final piping stress analysis includes design properties and characteristics of procured components selected to be included in the piping system that are not available for the as-designed evaluation. The as-built reconciliation is required prior to fuel load and includes evaluation of the ASME Code fatigue analysis, pipe break dynamic loads, reconciliation to the certified design floor response spectra, confirmation of the reactor coolant loop time history seismic analyses, changes in support locations, preoperational testing, and construction deviations.

Inherent to an N-5 Data Report is the listing and certification of the system's installation to the design and that it meets all the allowable stresses for which it was designed and built as determined by the final as-built System Design Report(s). To demonstrate the system's final configuration, as-built drawings are compiled which are based on QC inspected final isometric drawings. These detailed construction drawings were inspected and recorded as closed in the work packages that performed the installation. These as-built drawings are then reconciled to the as-designed analysis to ensure the system remains bounded by the original analysis. The drawings are used in the final Design Report to certify the system was built as designed. This level of detail is above and beyond that which is demonstrated in the Functional Arrangement ITAAC. Through the design control process, the as-built drawings are also ensured to match the simplified figures and listing of components and lines in the Functional

Arrangement COL tables. Therefore, when an ASME report covers the same components as the functional arrangement ITAAC, no additional information is verified by completion of that functional arrangement ITAAC.

For the ITAAC that are completed under the Equipment Qualification program, certain requirements for the documents produced to satisfy the AC need to be met. The equipment qualification program is described in UFSAR Appendix 3D and conforms to Regulatory Guide 1.89 and IEEE standards 323-1974 for qualification of electrical and mechanical equipment and 344-1987 for seismic qualification. These form the basis of the AP1000 equipment qualification program compliance with 10 CFR 50.49.

As part of the equipment qualification program, equipment is qualified using analysis, testing, or a combination of these methods. The results of this qualification is described in an Equipment Qualification Data Package (EQDP), per UFSAR Subsections 3D.7.1 and 3D.7.2. The EQDPs include information related to equipment identification and installation requirements. These attributes include specific component tag numbers and room locations for each piece of equipment, as well as physical attributes of installation, such as component orientation, bolting requirements, and wiring configurations. These attributes are verified as part of the as-built walkdowns required for EQ ITAAC closure, to ensure that the as-built components are bounded by the type testing and/or analyses utilized to qualify the equipment.

The EQ as-built walkdowns are generated using the EQDPs and as-built detailed construction drawings, and are performed by those qualified to the licensee's EQ walkdown procedure. The level of detail verified during the EQ as-built walkdowns is above and beyond that which is demonstrated in the functional arrangement ITAAC. Through the design control process, the as-built drawings are also ensured to match the simplified figures and listing of components and lines in the functional arrangement COL tables. Therefore, when EQ as-built ITAAC covers the same components as the functional arrangement ITAAC, no additional information is verified by completion of that functional arrangement ITAAC.

For the ITAAC that are completed under the initial test program (ITP), certain requirements for the documents produced to satisfy the AC need to be met. The ITP is described in UFSAR Chapter 14 and conforms to Regulatory Guide 1.68. The ITP has procedural requirements for pre-operational tests used to satisfy ITAAC, as well as procedural requirements for component tests, which are pre-requisites to pre-operational tests and can also be used to satisfy ITAAC. Through the administrative controls of the ITP, pre-operational tests require a pre-test walkdown to confirm the as-built system configuration matches the detailed system drawings. As-built walkdowns are suggested prior to component tests, as well. The actual testing of the components verifies functionality of the component and/or the integrated system, which validates the system is arranged and functions as designed. For the ITAAC whose ITA are performed under the ITP, the documentation which verifies the AC has been met includes system arrangement verification to a finer degree of detail than that which would be required by the functional arrangement ITAAC. Therefore, when ITP ITAAC cover the same components as the functional arrangement ITAAC, no additional information is verified by completion of that functional arrangement ITAAC.

As discussed above, the ITAAC that bound the functional arrangement ITAAC inherently verify functional arrangement of the systems; therefore, reliance on the subsequent ITAAC:

- encompasses the scope identified in the design commitment for the functional arrangement ITAAC, which will be shown through the ITAAC demonstrating the functionality,
- retains performance of the other 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.

The systems whose functional arrangement ITAAC are bounded by other ITAAC and / or verified by other means are as follows:

- Fuel Handling and Refueling System (FHS)
- Component Cooling Water System (CCS)
- Chemical and Volume Control System (CVS)
- Standby Diesel Fuel Oil System (DOS)
- Fire Protection System (FPS)
- Mechanical Handling System (MHS)
- Normal Residual Heat Removal System (RNS)
- Spent Fuel Pool Cooling System (SFS)
- Service Water System (SWS)
- Containment Hydrogen Control System (VLS)
- Liquid Radwaste System (WLS)
- Gaseous Radwaste System (WGS)
- Solid Radwaste System (WSS)
- Primary Sampling System (PSS)
- Demineralized Water Transfer and Storage System (DWS)
- Compressed and Instrumentation Air System (CAS)
- Radioactive Waste Drain System (WRS)
- Main and Startup Feedwater System (FWS)

- Main Turbine System (MTS)
- Condensate System (CDS)
- In-Core Instrumentation System (IIS)
- Special Monitoring System (SMS)
- Seismic Monitoring System (SJS)
- Main ac Power System (ECS)
- Onsite Standby Power System (ZOS)
- Nuclear Island Nonradioactive Ventilation System (VBS)
- Central Chilled Water System (VWS)
- Annex / Auxiliary Buildings Nonradioactive Ventilation System (VXS)
- Diesel Generator Building Ventilation System (VZS)
- Radiologically Controlled Area Ventilation System (VAS)
- Containment Air Filtration System (VFS)
- Containment Recirculation Cooling System (VCS)

2.1. Fuel Handling and Refueling System (FHS)

COL Appendix C (and plant-specific Tier 1) Table 2.1.1-1 includes ITAAC No. 1 (ITAAC 2.1.01.01), the FHS functional arrangement ITAAC:

Table 2.1.1-1
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the FHS is as described in the Design Description of this Section 2.1.1.	Inspection of the as-built system will be performed.	The as-built FHS conforms with the functional arrangement as described in the Design Description of this Section 2.1.1.

The Design Description for the FHS includes the following key attributes:

- The FHS transfers fuel assemblies and core components during fueling operations and stores new and spent fuel assemblies in the new and spent fuel storage racks.

- The component locations of the FHS are as shown in Table 2.1.1-2. Note, the FHS has no simplified figure.

The DC for this ITAAC is demonstrated through the ITA and AC of other ITAAC, specifically the integrated system inspections and testing ITAAC. The FHS is unique in that its design description relates to individual components that transfer fuel assemblies and core components during refueling operations. As such the functional arrangement simply locates these components in different buildings to demonstrate that functional purpose. Inspection of these components demonstrates that the required components exist and that they are located in a manner needed to perform the intended function. See below for a list of the ITAAC that demonstrate the design commitment of the FHS functional arrangement ITAAC (Index No. 1, ITAAC 2.1.01.01).

Component Name	**Tag No.**	**Functional ITAAC Number (Index Number)**	**Logic for Functional ITAAC Coverage of FA**
Refueling Machine (RM)	FHS-FH-01	2.1.01.04 (4)	ITAAC #4, parts 6 and 7 include inspection of the as-built FHS to locate the RM, FHM, spent fuel storage racks, and new fuel storage racks on the nuclear island. The location of the RM, FHM, spent fuel storage racks, and new fuel storage racks are verified through this ITAAC; no additional information is verified by completion of the functional arrangement ITAAC.
Fuel Handling Machine (FHM)	FHS-FH-02		
Spent Fuel Storage Racks	FHS-FS-02		
New Fuel Storage Racks	FHS-FS-01		
Fuel Transfer Tube	FHS-FT-01	2.2.01.07.i (107)	ITAAC #107 is the Integrated Leak Rate Test that includes test and inspection of the entire Containment Vessel Boundary; including the fuel transfer tube. The location and function of the fuel transfer tube is verified through this ITAAC; no additional information is verified by completion of the functional arrangement ITAAC.

As the functional arrangement of the FHS is verified by other ITAAC, the functional arrangement ITAAC itself does not provide any additional information and is proposed to be removed.

2.2. Component Cooling Water System (CCS)

COL Appendix C (and plant-specific Tier 1) Table 2.3.1-2 includes ITAAC No. 278 (ITAAC 2.3.01.01), the CCS functional arrangement ITAAC:

Table 2.3.1-2
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the CCS is as described in the Design Description of this Section 2.3.1.	Inspection of the as-built system will be performed.	The as-built CCS conforms with the functional arrangement as described in the Design Description of this Section 2.3.1.

The Design Description for CCS includes the following key attributes:

- The CCS removes heat from various plant components and transfers this heat to the service water system (SWS) during normal modes of plant operation including power generation, shutdown and refueling. The CCS has two pumps and two heat exchangers.
- The CCS is as shown in Figure 2.3.1-1 and the component locations of the CCS are as shown in Table 2.3.1-3.

The DC for this ITAAC is demonstrated through the ITA and AC of other ITAAC, specifically the testing and inspections performed for CCS, which include functional testing and integrated system inspections that demonstrate the required components exist and that they are connected in a manner to perform the intended function. See below for a list of the functional ITAAC associated with CCS components in Figure 2.3.1-1 and Table 2.3.1-3 that demonstrate the design commitment of the CCS functional arrangement ITAAC (Index No. 278, ITAAC 2.3.01.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
CCS Pumps	CCS-MP-01A/B	2.3.01.03.ii (281)	ITAAC #281, part 3 performs testing of the CCS pumps to provide cooling water from the CCS HX to the RNS HXs and SFS HXs; no additional information is verified by completion of the functional arrangement ITAAC.
CCS Heat Exchangers (HX)	CCS-ME-01A/B		
RNS HX A & B	RNS-ME-01A/B		
SFS HX A & B	SFS-ME-01A/B		

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
CONTAINMENT HEAT LOADS			ITAAC #281, part 3 performs testing of the CCS pumps to provide cooling water from the CCS HX to the RNS HX and SFS HX, while also providing flow to other users of cooling water, as shown on Figure 2.3.1-1; no additional information is verified by completion of the functional arrangement ITAAC.
RCPs	RCS-MP-01A/B, -02A/B		
CVS Letdown HX	CVS-ME-02		
WLS Reactor Coolant Drain Tank HX	WLS-ME-01		
OTHER HEAT LOADS			
CVS Miniflow HXs	CVS-ME-03A/B		
RNS Pump Seals	RNS-MP-01A/B		
PSS Sample Cooler	PSS-ME-01A/B		
VWS Chillers	VWS-ME-02A/B		
CAS Air Compressors	CAS-MS-01A/B, -03A/B		
CDS Pump Motor Oil Coolers	CDS-MP-01A/B		
RCP Variable Frequency Drives	ECS-EV-31/41/51/61		

As the functional arrangement of the CCS is verified by other ITAAC, the functional arrangement ITAAC itself does not provide any additional information and is proposed to be removed.

2.3. Chemical and Volume Control System (CVS)

COL Appendix C (and plant-specific Tier 1) Table 2.3.2-4 includes ITAAC No. 284 (ITAAC 2.3.02.01), the CVS functional arrangement ITAAC:

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

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the CVS is as described in the Design Description of this Section 2.3.2.	Inspection of the as-built system will be performed.	The as-built CVS conforms with the functional arrangement as described in the Design Description of this Section 2.3.2.

The Design Description for CVS includes the following key attributes:

- The CVS provides reactor coolant system (RCS) purification, RCS inventory control and makeup, chemical shim and chemical control, oxygen control, and auxiliary pressurizer spray.

- The CVS is as shown in Figure 2.3.2-1 and the component locations of the CVS are as shown in Table 2.3.2-5.

The DC for this ITAAC is demonstrated through the ITA and AC of other ITAAC, specifically the testing and inspections performed for CVS, which include functional testing and integrated system inspections that demonstrate the required components exist and that they are connected in a manner to perform the intended function. See below for a list of the functional ITAAC associated with CVS components in Figure 2.1.2-1 and Table 2.1.2-5 that demonstrate the design commitment of the CVS functional arrangement ITAAC (Index No. 284, ITAAC 2.3.02.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
CVS Makeup Pumps	CVS-MP-01A/B	2.3.02.08a.i (301)	ITAAC #301 parts 8.a) and 8.b) perform testing of the flow path from the Boric Acid Storage Tank, through the CVS pumps and all associated heat exchangers, demineralizers and filters to the RCS and to the RCS Pressurizer Auxiliary Spray; no additional information is verified by completion of the functional arrangement ITAAC.
Boric Acid Storage Tank	CVS-MT-01		
Regenerative HX	CVS-ME-01		
Letdown HX	CVS-ME-02		
Mixed Bed Demineralizers	CVS-MV-01A/B		
Cation Bed Demineralizer	CVS-MV-02		
Reactor Coolant Filters	CVS-MV-03A/B		
RCS Purification Motor-operated Isolation Valves	CVS-PL-V001 through V003	2.3.02.02a (285)	ITAAC #285 part 2b inspect as-built piping as documented in ASME Code Section III design reports (CVS system design reports) recorded on ASME N-5 certified data reports for lines in Table 2.3.2-1, which include the valves found on Figure 2.3.2-1. The location and function of these valves are verified through this ITAAC; no additional information is verified by completion of the functional arrangement ITAAC.
CVS Purification Return Line Pressure Boundary Check Valves	CVS-PL-V080 through -082		
CVS Auxiliary Pressurizer Spray Line Pressure Boundary Valves	CVS-PL-V084/V085		
CVS Resin Flush Line Containment Isolation Valves	CVS-PL-V040/V041		
CVS Demineralizer Resin Flush Line Containment Isolation Thermal Relief Valve	CVS-PL-V042		
CVS Letdown Containment Isolation Valves	CVS-PL-V045/V047		
CVS Letdown Line Containment Isolation Thermal Relief Valve	CVS-PL-V058		

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
CVS Makeup Line Containment Isolation Motor-operated Valves	CVS-PL-V090/V091	2.3.02.02a (285)	ITAAC #285 part 2b inspect as-built piping as documented in ASME Code Section III design reports (CVS system design reports) recorded on ASME N-5 certified data reports for lines in Table 2.3.2-1, which include the valves found on Figure 2.3.2-1. The location and function of these valves are verified through this ITAAC; no additional information is verified by completion of the functional arrangement ITAAC.
CVS Zinc Injection Containment Isolation Valve ORC	CVS-PL-V092		
CVS Zinc Injection Containment Isolation Valve IRC	CVS-PL-V094		
CVS Zinc Addition Line Containment Isolation Thermal Relief Valve	CVS-PL-V098		
CVS Makeup Line Containment Isolation Thermal Relief Valve	CVS-PL-V100		
CVS Demineralized Water Isolation Valves	CVS-PL-V136A/B		
CVS Hydrogen Injection Containment Isolation Valve ORC	CVS-PL-V219		
CVS Hydrogen Injection Containment Isolation Check Valve IRC	CVS-PL-V217		

As the functional arrangement of the CVS is verified by other ITAAC, the functional arrangement ITAAC itself does not provide any additional information and is proposed to be removed.

2.4. Standby Diesel Fuel Oil System (DOS)

COL Appendix C (and plant-specific Tier 1) Table 2.3.3-2 includes ITAAC No. 318 (ITAAC 2.3.03.01), the DOS functional arrangement ITAAC:

Table 2.3.3-2
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the DOS is as described in the Design Description of this Section 2.3.3.	Inspection of the as-built system will be performed.	The as-built DOS conforms with the functional arrangement as described in the Design Description of this Section 2.3.3.

The Design Description for DOS includes the following key attributes:

- The DOS supplies diesel fuel oil for the onsite standby power system. The diesel fuel oil is supplied by two above-ground fuel oil storage tanks. The DOS also provides fuel oil for the ancillary diesel generators. A single fuel oil storage tank services both ancillary diesel generators.

- The DOS is as shown in Figure 2.3.3-1 and the component locations of the DOS are as shown in Table 2.3.3-3.

The DC for this ITAAC is demonstrated through the ITA and AC of other ITAAC, specifically the testing and inspections performed for DOS, which include functional testing and system inspections that demonstrate the required components exist and that they are connected in a manner to perform the intended function. See below for a list of the functional ITAAC associated with DOS components in Figure 2.3.3-1 and Table 2.3.3-3 that demonstrate the design commitment of the DOS functional arrangement ITAAC (Index No. 318, ITAAC 2.3.03.01).

Component Name	**Tag No.**	**Functional ITAAC Number (Index Number)**	**Logic for Functional ITAAC Coverage of FA**
Diesel Oil Transfer Packages	DOS-MS-01A/B	2.3.03.03c (322)	ITAAC #322 performs testing that the fuel oil flow rate to the day tank of each standby diesel generator provides for continuous operation of the associated diesel generator, which involves all eight of these components; no additional information is verified by completion of the functional arrangement ITAAC.
Fuel Oil Storage Tanks	DOS-MT-01A/B		
Diesel Generator Fuel Oil Day Tanks	DOS-MT-02A/B		
Diesel Fuel Oil Pumps	DOS-MP-01A/B		
Ancillary Diesel Fuel Oil Storage Tank	DOS-MT-03	2.3.03.02 (319)	ITAAC #319 performs inspection that the as-built ancillary diesel generator fuel oil storage tank and anchorage are designed using seismic Category II methods and criteria; no additional information is verified by completion of the functional arrangement ITAAC.

As the functional arrangement of the DOS is verified by other ITAAC, the functional arrangement ITAAC itself does not provide any additional information and is proposed to be removed.

2.5. Fire Protection System (FPS)

COL Appendix C (and plant-specific Tier 1) Table 2.3.4-2 includes ITAAC No. 326 (ITAAC 2.3.04.01), the FPS functional arrangement ITAAC:

Table 2.3.4-2
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the FPS is as described in the Design Description of this Section 2.3.4.	Inspection of the as-built system will be performed.	The as-built FPS conforms with the functional arrangement as described in the Design Description of this Section 2.3.4.

The Design Description for FPS includes the following key attributes:

- The FPS detects and suppresses fires in the plant. The FPS consists of water distribution systems, automatic and manual suppression systems, a fire detection and alarm system, and portable fire extinguishers.
- The FPS provides fire protection for the nuclear island, the annex building, the turbine building, the radwaste building and the diesel generator building.
- The FPS is as shown in Figures 2.3.4-1 (Sheets 1 and 2) and 2.3.4-2, and the locations of the components in these systems are shown in Table 2.3.4-3.

The DC for this ITAAC is largely demonstrated through the ITA and AC of other ITAAC. See below for a list of the functional ITAAC associated with FPS components in Figures 2.3.4-1 (Sheets 1 and 2) and 2.3.4-2 and Table 2.3.4-3 that demonstrate the design commitment of the FPS functional arrangement ITAAC (Index No. 326, ITAAC 2.3.04.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Motor-driven Fire Pump	FPS-MP-01A	2.3.04.05 (332)	ITAAC #332 includes testing of the retrievability of the parameters in the MCR. The displays identified in Table 2.3.4-1 can be retrieved in the MCR which includes these components; no additional information is verified by completion of the functional arrangement ITAAC.
Diesel-driven Fire Pump	FPS-MP-01B		
Jockey Pump	FPS-MP-02		

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Primary Fire Water Tank	FPS-MT-01A	2.3.04.04.i (330)	ITAAC #330 part 7 includes inspection of the as-built fire water storage tanks; no additional information is verified by completion of the functional arrangement ITAAC.
Secondary Fire Water Tank	FPS-MT-01B		
Fire Pump Diesel Fuel Day Tank	FPS-MT-02	2.3.04.09 (336)	ITAAC #336 performs an inspection of the as-built diesel-driven fire pump day tank; no additional information is verified by completion of the functional arrangement ITAAC.
FPS Seismic Standpipe Subsystem to FPS Plant Fire Main Cross-Connect Valve	FPS-PL-V101	2.3.04.11 (338)	ITAAC #338 performs an inspection to confirm that FPS-PL-V101 exists and can connect the FPS seismic standpipe subsystem to the FPS plant fire main; no additional information is verified by completion of the functional arrangement ITAAC.
Piping shown on Figure 2.3.4-2	N/A	2.3.04.02.i (327)	ITAAC #327 performs an inspection to verify that the piping shown on Figure 2.3.4-2 is installed in the correct location; no additional information is verified by completion of the functional arrangement ITAAC.

The FPS contains a number of components not listed in the above table that are outside the scope of ITAAC. The FPS has one safety-related function of containment isolation, which is verified via CNS system ITAAC. The remaining functions of the FPS are defense-in-depth or non-safety related. The arrangement of the FPS equipment necessary to perform the defense-in-depth functions are verified via other ITAAC, as shown in the above table. The remaining FPS components in Figure 2.3.4-1 Sheets 1 and 2 are tested in the Initial Test Program (ITP) as described in UFSAR Subsection 14.2.9.2.8, which provides verification that the as-installed system properly functions. The FPS does not have any features or functions credited for mitigation of design basis events, nor are there any features or functions that have been identified as candidates for additional regulatory oversight per UFSAR Section 16.3.

It is appropriate to remove the functional arrangement ITAAC for the FPS because the functional testing ITAAC referenced above will demonstrate that the equipment necessary to

perform the defense-in-depth functions are appropriately arranged, and the additional FPS equipment in Figure 2.3.4-1 Sheets 1 and 2 are tested in the ITP. Therefore, the functional arrangement ITAAC is proposed to be removed.

2.6. Mechanical Handling System (MHS)

COL Appendix C (and plant-specific Tier 1) Table 2.3.5-2 includes ITAAC No. 339 (ITAAC 2.3.05.01), the MHS functional arrangement ITAAC:

Table 2.3.5-2
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the MHS is as described in the Design Description of this Section 2.3.5.	Inspection of the as-built system will be performed.	The as-built MHS conforms with the functional arrangement as described in the Design Description of this Section 2.3.5.

The Design Description for MHS includes the following key attributes:

- The MHS provides for lifting heavy loads. The MHS equipment can be operated during shutdown and refueling.
- The MHS component locations are as shown in Table 2.3.5-3. Note, the MHS has no simplified figure.

The DC for this ITAAC is demonstrated through the ITA and AC of other ITAAC, specifically the inspections performed for MHS, which demonstrate the required components exist and are sized to perform the intended function. See below for a list of the functional ITAAC associated with MHS components in Table 2.3.5-3 that demonstrate the design commitment of the MHS functional arrangement ITAAC (Index No. 339, ITAAC 2.3.05.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Containment Polar Crane	MHS-MH-01	2.3.05.03a.ii (344)	ITAAC #344 part 3.a) performs tests on the polar crane to include static-load and a test load to lower, stop and hold the 100% load; no additional information is verified by completion of the functional arrangement ITAAC.

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Cask Handling Crane	MHS-MH-02	2.3.05.03b.iii (348)	ITAAC #348 parts 3.b) and 4.) perform tests on the cask handling crane to include static-load and a test load to lower and stop and hold 100% load; no additional information is verified by completion of the functional arrangement ITAAC.
Equipment Hatch Hoist	MHS-MH-05	2.3.05.03c.ii (350)	ITAAC #350 part 3.c) performs tests on the equipment hatch hoist holding mechanism to stop and hold the hatch; no additional information is verified by completion of the functional arrangement ITAAC.
Maintenance Hatch Hoist	MHS-MH-06	2.3.05.03d.ii (352)	ITAAC #352 part 3.d) performs tests on the maintenance hatch hoist holding mechanism to stop and hold the hatch; no additional information is verified by completion of the functional arrangement ITAAC.

As the functional arrangement of the MHS is verified by other ITAAC, the functional arrangement ITAAC itself does not provide any additional information and is proposed to be removed.

2.7. Normal Residual Heat Removal System (RNS)

COL Appendix C (and plant-specific Tier 1) Table 2.3.6-4 includes ITAAC No. 354 (ITAAC 2.3.06.01), the RNS functional arrangement ITAAC:

Table 2.3.6-4 Inspections, Tests, Analyses, and Acceptance Criteria		
Design Commitment	**Inspections, Tests, Analyses**	**Acceptance Criteria**
1. The functional arrangement of the RNS is as described in the Design Description of this Section 2.3.6.	Inspection of the as-built system will be performed.	The as-built RNS conforms with the functional arrangement as described in the Design Description of this Section 2.3.6.

The Design Description for RNS includes the following key attributes:

- The RNS removes heat from the core and RCS, and provides RCS low temperature over-pressure (LTOP) protection at reduced RCS pressure and temperature conditions after shutdown. The RNS also provides a means for cooling the in-containment refueling water storage tank (IRWST) during normal plant operation.

- The RNS is as shown in Figure 2.3.6-1, and the RNS component locations are as shown in Table 2.3.6-5.

The DC for this ITAAC is demonstrated through the ITA and AC of other ITAAC. See below for a list of the functional ITAAC associated with RNS components in Figure 2.3.6-1, and Table 2.3.6-5. that demonstrate the design commitment of the RNS functional arrangement ITAAC (Index No. 354, ITAAC 2.3.06.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
RNS Pumps	RNS-MP-01A/B	2.3.06.09b.ii (375)	ITAAC #375 part 9.b.ii) tests that the RNS pumps can provide flow through the RNS heat exchangers when the pump suction is aligned to the RCS hot leg; no additional information is verified by completion of the functional arrangement ITAAC.
RNS HXs	RNS-ME-01A/B		
RNS Discharge to IRWST Motor-operated Isolation Valve	RNS-PL-V024	2.3.06.05a.i (361)	ITAAC #361 part 5.a.i) verifies that the seismic Category I equipment identified in Table 2.3.6-1 is installed in the correct location; no additional information is verified by completion of the functional arrangement ITAAC.
RNS Discharge RCS Pressure Boundary Check Valves	RNS-PL-V015A/B RNS-PL-V017A/B		
RNS Discharge Header Containment Isolation Check Valve	RNS-PL-V013		

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
RNS Discharge Containment Isolation Test Connection	RNS-PL-V012		
RNS Discharge Motor operated Containment Isolation Valve	RNS-PL-V011		
RNS Suction from Cask Loading Pit Motor operated Isolation Valve	RNS-PL-V055		
RNS Suction from Cask Loading Pit Check Valve	RNS-PL-V056		
RNS Pump Miniflow Air-Operated Isolation Valves	RNS-PL-V057A/B		
RNS Return from CVS Containment Isolation Valve	RNS-PL-V061		
RNS Hot Leg Suction Pressure Relief Valves	RNS-PL-V020/V021	2.3.06.05a.i (361)	ITAAC #361 part 5.a.i) verifies that the seismic Category I equipment identified in Table 2.3.6-1 is installed in the correct location; no additional information is verified by completion of the functional arrangement ITAAC.
RNS Suction Header Motor-operated Containment Isolation Valve	RNS-PL-V022		
RNS Suction from IRWST Motor-operated Isolation Valve	RNS-PL-V023		
RCS Inner Hot Leg Suction Motor-operated Isolation Valves	RNS-PL-V001A/B		
RCS Outer Hot Leg Suction Motor-operated Isolation Valves	RNS-PL-V002A/B		
RCS Pressure Boundary Thermal Relief Check Valves	RNS-PL-V003A/B		

As the functional arrangement of the RNS is verified by other ITAAC, the functional arrangement ITAAC itself does not provide any additional information and is proposed to be removed.

2.8. Spent Fuel Pool Cooling System (SFS)

COL Appendix C (and plant-specific Tier 1) Table 2.3.7-4 includes ITAAC No. 391 (ITAAC 2.3.07.01), the SFS functional arrangement ITAAC:

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

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the SFS is as described in the Design Description of this Section 2.3.7.	Inspection of the as-built system will be performed.	The as-built SFS conforms with the functional arrangement as described in the Design Description of this Section 2.3.7.

The Design Description for SFS includes the following key attributes:

- The SFS removes decay heat from spent fuel by transferring heat from the water in the spent fuel pool to the component cooling water system during normal modes of operation. The SFS purifies the water in the spent fuel pool, fuel transfer canal, and in-containment refueling water storage tank during normal modes of operation. Following events such as earthquakes, or fires, if the normal heat removal method is not available, decay heat is removed from spent fuel by boiling water in the pool. In the event of long-term station blackout, makeup water is supplied to the spent fuel pool from onsite storage tanks

- The SFS is as shown in Figure 2.3.7-1, and the SFS component locations are as shown in Table 2.3.7-5.

The DC for this ITAAC is demonstrated through the ITA and AC of other ITAAC. See below for a list of the functional ITAAC associated with SFS components in Figure 2.3.7-1, and Table 2.3.7-5. that demonstrate the design commitment of the SFS functional arrangement ITAAC (Index No. 391, ITAAC 2.3.07.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
SFS Pumps	SFS-MP-01A/B	2.3.07.07c (408)	ITAAC #408 part 8 tests that the SFS pumps can provide
SFS HXs	SFS-ME-01A/B		

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Spent Fuel Pool (SFP)	FHS-MT-01		flow through the SFS heat exchangers when taking suction from the SFP and returning flow to the SFP; no additional information is verified by completion of the functional arrangement ITAAC.
PCS Water Storage Tank	PCS-MT-01	2.2.02.07f.i (145)	ITAAC#145 part 7.f) tests the delivery rate from the PCCWST to the spent fuel pool.
Cask Loading Pit	FHS-MT-05	2.3.07.07b.vii (881)	ITAAC #881 inspects the water volume of the cask loading pit; no additional information is verified by completion of the functional arrangement ITAAC.
Cask Washdown Pit	FHS-MT-06	2.3.07.07b.ii (403)	ITAAC #403 inspects the water volume of the cask washdown pit; no additional information is verified by completion of the functional arrangement ITAAC.
Fuel Transfer Canal	FHS-MT-02	2.3.07.07b.i (402)	ITAAC #402 inspects the volume of the fuel transfer canal; no additional information is verified by completion of the functional arrangement ITAAC.
Refueling Cavity	FHS-MT-03	2.3.07.07c	

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Refueling Cavity Drain Line Check Valves	SFS -PL-V071/072	(408)	ITAAC #408 part 7c) exercise tests the SFS check valves in the refueling cavity drain line, under pre-operational conditions, to demonstrate that these valves prevent flooding of the refueling cavity during containment flooding; no additional information is verified by completion of the functional arrangement ITAAC.
Cask Loading Pit to SFS Pump Suction Isolation Valves	SFS -PL-V041/042	2.3.07.05.i (396)	ITAAC #396 part 5.i) verifies that the seismic Category I equipment identified in Table 2.3.7-1 is installed in the correct location; no additional information is verified by completion of the functional arrangement ITAAC.
SFS Pump Discharge Line to Cask Loading Pit Isolation Valve	SFS -PL-V045		
Cask Loading Pit to WLS Isolation Valve	SFS -PL-V049		
Spent Fuel Pool to Cask Washdown Pit Isolation Valve	SFS -PL-V066		
Cask Washdown Pit Drain Isolation Valve	SFS -PL-V068		
Fuel Transfer Canal to SFS Pump Suction Isolation Valve	SFS -PL-V040	2.3.07.05.i (396)	ITAAC #396 part 5.i) verifies that the seismic Category I equipment identified in Table 2.3.7-1 is installed in the correct location; no additional information is verified by completion of the functional arrangement ITAAC.
IRWST to SFS Pump Suction Line Isolation Valve	SFS -PL-V039		
Refueling Cavity to SFS Pump Suction Isolation Valve	SFS -PL-V032		
Refueling Cavity Drain to SGS Compartment Isolation Valve	SFS -PL-V031		

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Refueling Cavity Drain to Containment Sump Isolation Valve	SFS -PL-V033		
SFS Containment Floodup Isolation Valve	SFS-PL-V075		
SFS Suction Line Containment Isolation MOV - IRC	SFS -PL-V034	2.2.01.07.ii (108)	ITAAC #108 tests remotely operated containment isolation valves to ensure they close within the required response times; no additional information is verified by completion of the functional arrangement ITAAC.
SFS Suction Line Containment Isolation MOV - ORC	SFS -PL-V035		
SFS Discharge Line Check Valve IRC	SFS -PL-V037	2.2.01.11a.iv (117)	ITAAC #117 tests check valves with active safety functions identified in Table 2.2.1-1 under preoperational test pressure, temperature and flow conditions; no additional information is verified by completion of the functional arrangement ITAAC.
SFS Discharge Line Containment Isolation MOV - ORC	SFS -PL-V038	2.2.01.05.i (98)	ITAAC #98 part 5.i) verifies that the seismic Category I equipment identified in identified in Table 2.2.1-1 is installed in the correct location; no additional information is verified by completion of the functional arrangement ITAAC.

The SFS contains several components not listed in the above table that are outside the scope of ITAAC: two each of the demineralizers and filters. The SFS safety-related and defense-in-depth functions do not rely on these components. These components are tested in the Initial Test Program (ITP) as described in UFSAR Subsection 14.2.9.2.7, which provides verification that the as-installed system properly functions. These components are not required for any features or functions credited for mitigation of design basis events, nor are there any SFS

features or functions that have been identified as candidates for additional regulatory oversight per UFSAR Section 16.3.

It is appropriate to remove the functional arrangement ITAAC for the SFS because the functional testing ITAAC referenced above will demonstrate that the equipment necessary to perform the safety-related and defense-in-depth functions are appropriately arranged, and the additional four SFS components not tested by other ITAAC are tested in the ITP. Therefore, the functional arrangement ITAAC is proposed to be removed.

2.9. Service Water System (SWS)

COL Appendix C (and plant-specific Tier 1) Table 2.3.8-2 includes ITAAC No. 414 (ITAAC 2.3.08.01), the SWS functional arrangement ITAAC:

Table 2.3.8-2
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the SWS is as described in the Design Description of this Section 2.3.8.	Inspection of the as-built system will be performed.	The as-built SWS conforms with the functional arrangement as described in the Design Description of this Section 2.3.8.

The Design Description for SWS includes the following key attributes:

- The SWS transfers heat from the component cooling water heat exchangers to the atmosphere. The SWS operates during normal modes of plant operation, including startup, power operation (full and partial loads), cooldown, shutdown, and refueling.
- The SWS is as shown in Figure 2.3.8-1 and the component locations of the SWS are as shown in Table 2.3.8-3.

The DC for this ITAAC is demonstrated through the ITA and AC of other ITAAC. See below for a list of the functional ITAAC associated with SWS components in Figure 2.3.8-1 and Table 2.3.8-3 that demonstrate the design commitment of the SWS functional arrangement ITAAC (Index No. 414, ITAAC 2.3.08.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Service Water Pumps	SWS-MP-01A/B	2.3.08.02.i (415)	ITAAC #415, part 2 tests both SWS pump's capacity through the CCS HXs; no additional information is verified by completion of the functional arrangement ITAAC.
Service Water Cooling Tower Fans	SWS-MA-01A/B	2.3.08.02.i (415)	ITAAC #415, part 3 tests that controls in the MCR operate to cause the components listed in Table 2.3.8-1 to perform the listed function; no additional information is verified by completion of the functional arrangement ITAAC.
Service Water Pump A Discharge Valves	SWS-PL-V002A/B		
SWS Cooling Tower	SWS-ME-01	2.3.08.02.i (415)	ITAAC #415, part 4 inspects that displays identified in Table 2.3.8-1 can be retrieved in the MCR; no additional information is verified by completion of the functional arrangement ITAAC.

As the functional arrangement of the SWS is verified by other ITAAC, the functional arrangement ITAAC itself does not provide any additional information and is proposed to be removed.

2.10. Containment Hydrogen Control System (VLS)

COL Appendix C (and plant-specific Tier 1) Table 2.3.9-3 includes ITAAC No. 420 (ITAAC 2.3.09.01), the VLS functional arrangement ITAAC:

Table 2.3.9-3 Inspections, Tests, Analyses, and Acceptance Criteria		
Design Commitment	**Inspections, Tests, Analyses**	**Acceptance Criteria**
1. The functional arrangement of the VLS is as described in the Design Description of this Section 2.3.9.	Inspection of the as-built system will be performed.	The as-built VLS conforms with the functional arrangement as described in the Design Description of this Section 2.3.9.

The Design Description for VLS includes the following key attributes:

- The VLS limits hydrogen gas concentration in containment during accidents.
- The VLS has catalytic hydrogen recombiners that are located inside containment.
- The VLS has hydrogen igniters located as shown on Table 2.3.9-2. Note, the VLS has no simplified figure.

The DC for this ITAAC is largely demonstrated through the ITA and AC of other ITAAC, specifically the inspections performed for VLS, which demonstrate the required components exist and are located to perform the intended function. See below for a list of the functional ITAAC associated with VLS components in Table 2.3.9-2 that demonstrate the design commitment of the VLS functional arrangement ITAAC (Index No. 420, ITAAC 2.3.09.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Hydrogen Igniters	VLS-EH-01 through -66	2.3.09.03.ii (424)	ITAAC #424, part 3 performs inspections for the number and location of hydrogen igniters; no additional information is verified by completion of the functional arrangement ITAAC.

The VLS contains two catalytic hydrogen recombiners not listed in the above table, which are outside the scope of ITAAC. The VLS performs no safety-related functions, and the defense-in-depth functions do not rely on the recombiners. The recombiners are tested in the ITP as described in UFSAR Subsection 14.2.9.1.11, which provides verification that the as-installed system properly functions. These components are not used to satisfy any requirements in 10 CFR 50.34(f) or 10 CFR 50.44.

It is appropriate to remove the functional arrangement ITAAC for the VLS because the functional testing ITAAC referenced above will demonstrate that the equipment necessary to perform the defense-in-depth functions are appropriately arranged, and the additional two VLS components not tested by other ITAAC are tested in the ITP. Therefore, the functional arrangement ITAAC is proposed to be removed.

2.11. Liquid Radwaste System (WLS)

COL Appendix C (and plant-specific Tier 1) Table 2.3.10-4 includes ITAAC No. 430 (ITAAC 2.3.10.01), the WLS functional arrangement ITAAC:

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

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the WLS is as described in the Design Description of this Section 2.3.10.	Inspection of the as-built system will be performed.	The as-built WLS conforms with the functional arrangement as described in the Design Description of this Section 2.3.10.

The Design Description for WLS includes the following key attributes:

- The WLS receives, stores, processes, samples and monitors the discharge of radioactive wastewater.
- The WLS has components which receive and store radioactive or potentially radioactive liquid waste. These are the reactor coolant drain tank, the containment sump, the effluent holdup tanks and the waste holdup tanks.
- The WLS is as shown in Figure 2.3.10-1, and the component locations of the WLS are as shown on Table 2.3.10-5.

The DC for this ITAAC is largely demonstrated through the ITA and AC of other ITAAC, specifically the inspections performed for WLS, which demonstrate the required components exist and are located to perform the intended function. See below for a list of the functional ITAAC associated with WLS components in Figure 2.3.10-1 and/or Table 2.3.10-5 that demonstrate the design commitment of the WLS functional arrangement ITAAC (Index No. 430, ITAAC 2.3.10.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
WLS Drain from (CVS) Compartment (Room 11209) Check Valves	WLS-PL-V071A/V072A	2.3.10.05a.i (437)	ITAAC #437 part i verifies that the seismic Category I equipment identified in Table 2.3.10-1 is

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
WLS Drain from Passive Core Cooling System (PXS) Compartment A (Room 11206) Check Valves	WLS-PL-V071B/V072B		installed in the correct location; no additional information is verified by completion of the functional arrangement ITAAC.
WLS Drain from PXS Compartment B (Room 11207) Check Valves	WLS-PL-V071C/V072C		
Sump Discharge Containment Isolation Valve – IRC	WLS-PL-V055	2.2.01.07.ii (108)	ITAAC #108 performs tests to demonstrate that remotely operated containment isolation valves close within required response times; no additional information is verified by completion of the functional arrangement ITAAC.
Sump Discharge Containment Isolation Valve – ORC	WLS-PL-V057		
CVS Letdown Containment Isolation Valves	CVS-PL-V045/V047		
WLS Effluent Discharge Isolation Valve	WLS-PL-V223	2.3.10.07a.ii (444)	ITAAC #444 Part 7.b) tests that a high radiation signal causes this valve to close.

The WLS contains a number of components not listed in the above table that are outside the scope of ITAAC. The WLS safety-related functions are performed by components that are shown to be covered by other ITAAC in the above table. The WLS has no defense-in-depth functions. The additional components not tested in ITAAC are tested in the ITP, as described in UFSAR Subsection 14.2.9.3.1, which provides verification that the as-installed system properly functions. These components are not required for any features or functions credited for mitigation of design basis events, nor are there any WLS features or functions that have been identified as candidates for additional regulatory oversight per UFSAR Section 16.3.

It is appropriate to remove the functional arrangement ITAAC for the WLS because the functional testing ITAAC referenced above will demonstrate that the equipment necessary to perform the safety-related functions are appropriately arranged, and the additional WLS components not tested by other ITAAC are tested in the ITP. Therefore, the functional arrangement ITAAC is proposed to be removed.

2.12. Gaseous Radwaste System (WGS)

COL Appendix C (and plant-specific Tier 1) Table 2.3.11-2 includes ITAAC No. 449 (ITAAC 2.3.11.01), the WGS functional arrangement ITAAC:

Table 2.3.11-2 Inspections, Tests, Analyses, and Acceptance Criteria		
Design Commitment	**Inspections, Tests, Analyses**	**Acceptance Criteria**
1. The functional arrangement of the WGS is as described in the Design Description of this Section 2.3.11.	Inspection of the as-built system will be performed.	The as-built WGS conforms with the functional arrangement as described in the Design Description of this Section 2.3.11.

The Design Description for WGS includes the following key attributes:

- The WGS receives, processes, and discharges the waste gases received within acceptable off-site release limits during normal modes of plant operation including power generation, shutdown and refueling.

- The WGS is as shown in Figure 2.3.11-1 and the component locations of the WGS are as shown on Table 2.3.11-3.

The DC for this ITAAC is largely demonstrated through the ITA and AC of other ITAAC, specifically the inspections performed for WGS, which demonstrate the required components exist and are located to perform the intended function. See below for a list of the functional ITAAC associated with WGS components in Figure 2.3.11-1 and/or Table 2.3.11-3 that demonstrate the design commitment of the WGS functional arrangement ITAAC (Index No. 449, ITAAC 2.3.11.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
WGS Activated Carbon Delay Beds	WGS-MV-02A/02B	2.3.11.02.i (450)	ITAAC #450 verifies that the equipment identified as having seismic design requirements in Table 2.3.11-1 is installed in the correct location; no additional information is verified by completion of the functional arrangement ITAAC.

The WGS contains a number of components not listed in the above table that are outside the scope of ITAAC. The WGS has no safety-related or defense-in-depth functions. The additional components not tested in ITAAC are tested in the ITP, as described in UFSAR Subsection 14.2.9.3.2, which provides verification that the as-installed system properly functions. These

components are not required for any features or functions credited for mitigation of design basis events, nor are there any WGS features or functions that have been identified as candidates for additional regulatory oversight per UFSAR Section 16.3.

It is appropriate to remove the functional arrangement ITAAC for the WGS because the functional testing ITAAC referenced above will demonstrate that the equipment necessary to perform some non-safety-related, non-defense-in-depth functions are appropriately arranged, and the additional WLS components not tested by other ITAAC are tested in the ITP. Therefore, the functional arrangement ITAAC is proposed to be removed.

2.13. Solid Radwaste System (WSS)

COL Appendix C (and plant-specific Tier 1) Table 2.3.12-1 includes ITAAC No. 456 (ITAAC 2.3.12.01), the WSS functional arrangement ITAAC:

Table 2.3.12-1
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the WSS is as described in the Design Description of this Section 2.3.12.	Inspection of the as-built system will be performed.	The as-built WSS conforms with the functional arrangement as described in the Design Description of this Section 2.3.12.

The Design Description for WSS includes the following key attributes:

- The solid radwaste system (WSS) receives, collects, and stores the solid radioactive wastes received prior to their processing and packaging by mobile equipment for shipment off-site.
- The component locations of the WSS are as shown on Table 2.3.12-2. Note, the WSS has no simplified figure.

The DC for this ITAAC is not demonstrated through the ITA and AC of other ITAAC. However, it is still appropriate to remove the functional arrangement ITAAC for the WSS. The WSS has no safety-related or defense-in-depth functions. The WSS components are not required for any features or functions credited for mitigation of design basis events, nor are there any WSS features or functions that have been identified as candidates for additional regulatory oversight per UFSAR Section 16.3. The WSS components are tested in the ITP, as described in UFSAR Subsection 14.2.9.3.3, which provides verification that the as-installed system properly functions. Therefore, the functional arrangement ITAAC is proposed to be removed.

2.14. Primary Sampling System (PSS)

COL Appendix C (and plant-specific Tier 1) Table 2.3.13-3 includes ITAAC No. 458 (ITAAC 2.3.13.01), the PSS functional arrangement ITAAC:

Table 2.3.13-3 Inspections, Tests, Analyses, and Acceptance Criteria		
Design Commitment	**Inspections, Tests, Analyses**	**Acceptance Criteria**
1. The functional arrangement of the PSS is as described in the Design Description of this Section 2.3.13.	Inspection of the as-built system will be performed.	The as-built PSS conforms with the functional arrangement as described in the Design Description of this Section 2.3.13.

The Design Description for PSS includes the following key attributes:

- The primary sampling system collects samples of fluids in the reactor coolant system (RCS), and the containment atmosphere during normal operations.
- The PSS is as shown in Figure 2.3.13-1. The PSS Grab Sampling Unit (PSS-MS-01 is located in the Auxiliary Building. Note, the PSS has no table of component locations.

The DC for this ITAAC is demonstrated through the ITA and AC of other ITAAC, specifically the inspections performed for PSS, which demonstrate the required components exist and are sized to perform the intended function. See below for a list of the functional ITAAC associated with PSS components in Table 2.3.13-1 that demonstrate the design commitment of the PSS functional arrangement ITAAC (Index No. 458, ITAAC 2.3.13.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Containment Air Sample Containment Isolation Valve IRC	PSS-PL-V008	2.3.13.05.i (462)	ITAAC#462 Part 5.i verifies that the seismic Category I equipment identified in Table 2.3.13-1 is installed in the correct location; no additional information is verified by completion of the functional arrangement ITAAC.
Liquid Sample Line Containment Isolation Valves – IRC	PSS-PL-V010A/V010B		
Liquid Sample Line Containment Isolation Valves – ORC	PSS-PL-V011A/V011B		
Sample Return Line Containment Isolation Valve ORC	PSS-PL-V023		
Sample Return Line Containment Isolation Valve IRC	PSS-PL-V024		

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Air Sample Line Containment Isolation Valve ORC	PSS-PL-V046		
Hot Leg 1 Sample Isolation Valve	PSS-PL-V001A	2.3.13.08 (470)	ITAAC#470 Part 12 tests the components in Table 2.3.13-2 using controls in the MCR; no additional information is verified by completion of the functional arrangement ITAAC.
Hot Leg 2 Sample Isolation Valve	PSS-PL-V001B		
PSS Grab Sampling Unit	PSS-MS-01	2.3.13.08 (470)	ITAAC#470 Part 8 obtains samples of the reactor coolant and containment atmosphere from the Grab Sampling Unit; no additional information is verified by completion of the functional arrangement ITAAC.

As the functional arrangement of the PSS is verified by other ITAAC, the functional arrangement ITAAC itself does not provide any additional information and is proposed to be removed.

2.15. Demineralized Water Transfer and Storage System (DWS)

COL Appendix C (and plant-specific Tier 1) Table 2.3.14-2 includes ITAAC No. 477 (ITAAC 2.3.14.01), the DWS functional arrangement ITAAC:

Table 2.3.14-2
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the DWS is as described in the Design Description of this Section 2.3.14.	Inspection of the as-built system will be performed.	The as-built DWS conforms with the functional arrangement as described in the Design Description of this Section 2.3.14.

The Design Description for DWS includes the following key attributes:

- The DWS receives water from the demineralized water treatment system (DTS) and provides a reservoir of demineralized water to supply the condensate storage tank

and for distribution throughout the plant. Demineralized water is processed in the DWS to remove dissolved oxygen.

- In addition to supplying water for makeup of systems which require pure water, the demineralized water is used to sluice spent radioactive resins from the ion exchange vessels in the chemical and volume control system (CVS), the spent fuel pool cooling system (SFS), and the liquid radwaste system (WLS) to the solid radwaste system (WSS).

- The component location of the DWS are shown in Table 2.3.14-3. Note, the DWS has no simplified figure.

The DC for this ITAAC is largely demonstrated through the ITA and AC of other ITAAC, specifically the inspections performed for DWS, which demonstrate the required components exist and are sized to perform the intended function. See below for a list of the functional ITAAC associated with DWS components in Table 2.3.14-3 that demonstrate the design commitment of the DWS functional arrangement ITAAC (Index No. 477, ITAAC 2.3.14.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Condensate Storage Tank (CST)	DWS-MT-02	2.3.14.03 (479)	ITAAC #479 inspects the as-built CST to confirm its volume; no additional information is verified by completion of the functional arrangement ITAAC.

The DWS contains a number of components not listed in the above table that are outside the scope of ITAAC. The DWS has one safety-related function of containment isolation, which is verified via CNS system ITAAC. The remaining functions of the DWS are defense-in-depth or non-safety related. The arrangement of the DWS equipment necessary to perform the defense-in-depth function, providing water from the CST to the FWS startup feedwater pumps, is verified via other ITAAC, as shown in the above table. The remaining DWS components in Table 2.3.14-3 are tested in the ITP as described in UFSAR Subsection 14.2.9.4.9, which provides verification that the as-installed system properly functions. The DWS does not have any features or functions credited for mitigation of design basis events, nor are there any features or functions that have been identified as candidates for additional regulatory oversight per UFSAR Section 16.3.

It is appropriate to remove the functional arrangement ITAAC for the DWS because the functional testing ITAAC referenced above will demonstrate that the equipment necessary to perform the defense-in-depth function is appropriately arranged, and the additional DWS equipment in Table 2.3.14-3 is tested in the ITP. Therefore, the functional arrangement ITAAC is proposed to be removed.

2.16. Compressed and Instrumentation Air System (CAS)

COL Appendix C (and plant-specific Tier 1) Table 2.3.15-2 includes ITAAC No. 481 (ITAAC 2.3.15.01), the CAS functional arrangement ITAAC:

Table 2.3.15-2 Inspections, Tests, Analyses, and Acceptance Criteria		
Design Commitment	**Inspections, Tests, Analyses**	**Acceptance Criteria**
1. The functional arrangement of the CAS is as described in the Design Description of this Section 2.3.15.	Inspection of the as-built system will be performed.	The as-built CAS conforms with the functional arrangement as described in the Design Description of this Section 2.3.15.

The Design Description for CAS includes the following key attributes:

- The CAS consists of three subsystems: instrument air, service air, and high-pressure air. The instrument air subsystem supplies compressed air for air-operated valves and dampers. The service air subsystem supplies compressed air at outlets throughout the plant to power air-operated tools and is used as a motive force for air-powered pumps. The service air subsystem is also utilized as a supply source for breathing air. The high-pressure air subsystem supplies air to the main control room emergency habitability system (VES) and fire-fighting apparatus recharge station.

- The component locations of the CAS are shown in Table 2.3.15-3. Note, the CAS has no simplified figure.

The DC for this ITAAC is not demonstrated through the ITA and AC of other ITAAC. However, it is still appropriate to remove the functional arrangement ITAAC for the CAS. The CAS has one safety-related function of containment isolation, which is verified via CNS system ITAAC. The CAS has no defense-in-depth functions. The CAS components in Table 2.3.15-3 are not required for any features or functions credited for mitigation of design basis events, nor are there any CAS features or functions that have been identified as candidates for additional regulatory oversight per UFSAR Section 16.3. The CAS components are tested in the ITP, as described in UFSAR Subsection 14.2.9.4.10, which provides verification that the as-installed system properly functions. Therefore, the functional arrangement ITAAC is proposed to be removed.

2.17. Radioactive Waste Drain System (WRS)

COL Appendix C (and plant-specific Tier 1) Table 2.3.29-1 includes ITAAC No. 488 (ITAAC 2.3.29.01), the WRS functional arrangement ITAAC:

Table 2.3.29-1 Inspections, Tests, Analyses, and Acceptance Criteria		
Design Commitment	**Inspections, Tests, Analyses**	**Acceptance Criteria**
1. The functional arrangement of the WRS is as described in the Design Description of this Section 2.3.29.	Inspection of the as-built system will be performed.	The as-built WRS conforms with the functional arrangement as described in the Design Description of this Section 2.3.29.

The Design Description for WRS includes the following key attributes:

- The radioactive waste drain system (WRS) collects radioactive and potentially radioactive liquid wastes from equipment and floor drains during normal operation, startup, shutdown, and refueling. The liquid wastes are then transferred to appropriate processing and disposal systems.

- The WRS is as shown in Figure 2.3.29-1. Note, the WRS has no table of component locations.

The DC for this ITAAC is demonstrated through the ITA and AC of other ITAAC. See below for a list of the functional ITAAC associated with WRS components in Figure 2.3.29-1 that demonstrate the design commitment of the WRS functional arrangement ITAAC (Index No. 488, ITAAC 2.3.29.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
WRS Aux Building Rad. Drains Sump	WRS-MT-01	2.3.29.02 (489)	ITAAC#489 parts 2 and 3 test the WRS and WLS system line up from the equipment and floor drains in the auxiliary and annex buildings and radwaste building to the sump and holdup tanks; no additional information is verified by completion of the functional arrangement ITAAC.
WLS Waste Holdup Tanks	WLS-MT-06A/B		
WLS Chemical Waste Tank	WLS-MT-11		
WLS Cont. Sump	WLS-MT-02	2.3.10.07a.ii (444)	ITAAC#444 part 7.a tests the WLS containment sump levels; no additional information is verified by completion of the functional arrangement ITAAC.

As the functional arrangement of the WRS is verified by other ITAAC, the functional arrangement ITAAC itself does not provide any additional information and can be removed.

2.18. Main and Startup Feedwater System (FWS)

COL Appendix C (and plant-specific Tier 1) Table 2.4.1-2 includes ITAAC No. 492 (ITAAC 2.4.01.01), the FWS functional arrangement ITAAC:

Table 2.4.1-2
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the startup feedwater system is as described in the Design Description of this Section 2.4.1.	Inspection of the as-built system will be performed.	The as-built startup feedwater system conforms with the functional arrangement as described in the Design Description of this Section 2.4.1.

The Design Description for the startup feedwater system includes the following key attributes:

- The startup feedwater system supplies feedwater to the steam generators during plant startup, hot standby and shutdown conditions, and during transients in the event of main feedwater system unavailability.

- Note; the startup feedwater system design description does not contain a table of components, nor does it refer to a simplified figure; although Figure 2.4.1-1 is included in Section 2.4.1 of the COL Appendix C.

The DC for this ITAAC is demonstrated through the ITA and AC of other ITAAC. See below for a list of the functional ITAAC associated with the startup feedwater system components in Figure 2.4.1-1 that demonstrate the design commitment of the startup feedwater system functional arrangement ITAAC (Index No. 492, ITAAC 2.4.01.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
CST	DWS-MT-02	2.4.01.02 (493)	ITAAC#493 part 2 tests that each startup feedwater pump provides water from the CST to both steam
Startup Feedwater Pumps	FWS-MP-03A/B		

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Startup Feedwater Pump Isolation Valves	FWS-PL-V013A/B		generators. Part 3 tests the components in Table 2.4.1-1, using controls in the MCR to perform the listed functions; no additional information is verified by completion of the functional arrangement ITAAC.

As the functional arrangement of the FWS is verified by other ITAAC, the functional arrangement ITAAC itself does not provide any additional information and is proposed to be removed.

2.19. Main Turbine System (MTS)

COL Appendix C (and plant-specific Tier 1) Table 2.4.2-1 includes ITAAC No. 496 (ITAAC 2.4.02.01), the MTS functional arrangement ITAAC:

Table 2.4.2-1
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the MTS is as described in the Design Description of this Section 2.4.2.	Inspection of the as-built system will be performed.	The as-built MTS conforms with the functional arrangement as described in the Design Description of this Section 2.4.2.

The Design Description for MTS includes the following key attributes:

- The MTS is designed for electric power production consistent with the capability of the reactor and the reactor coolant system.
- The component locations of the MTS are shown in Table 2.4.2-2. Note, the MTS has no simplified figure.

The DC for this ITAAC is largely demonstrated through the ITA and AC of other ITAAC, specifically the main turbine electrical overspeed protection system testing. See below for a list of the functional ITAAC associated with MTS components in Table 2.4.2-2 that demonstrate the design commitment of the MTS functional arrangement ITAAC (Index No. 496, ITAAC 2.4.02.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
HP Turbine	MTS-MG-01	2.4.02.02a (497)	ITAAC #497 Part 3 tests the two turbine electrical overspeed
LP Turbines	MTS-MG-02A/B/C		

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Electrical Overspeed Trip Device	N/A		protection trip systems to trip the main turbine-generator after overspeed signals are received; no additional information is verified by completion of the functional arrangement ITAAC.
Emergency Electrical Overspeed Trip Device	N/A		

The MTS functional arrangement ITAAC contains three components from the Gland Seal System (GSS) not listed in the above table that are outside the scope of ITAAC. The MTS and GSS have no safety-related or defense-in-depth functions. The additional components not tested in ITAAC are tested in the ITP, as described in UFSAR Subsection 14.2.9.4.3, which provides verification that the as-installed system properly functions. These components are not required for any features or functions credited for mitigation of design basis events, nor are there any MTS or GSS features or functions that have been identified as candidates for additional regulatory oversight per UFSAR Section 16.3.

It is appropriate to remove the functional arrangement ITAAC for the MTS because the functional testing ITAAC referenced above will demonstrate that the equipment necessary to perform some non-safety-related, non-defense-in-depth functions are appropriately arranged, and the additional GSS components not tested by other ITAAC are tested in the ITP. Therefore, the functional arrangement ITAAC is proposed to be removed.

2.20. Condensate System (CDS)

COL Appendix C (and plant-specific Tier 1) Table 2.4.6-2 includes ITAAC No. 503 (ITAAC 2.4.06.01), the CDS functional arrangement ITAAC:

Table 2.4.6-2
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the CDS is as described in the Design Description of this Section 2.4.6.	Inspection of the as-built system will be performed.	The as-built CDS conforms with the functional arrangement as described in the Design Description of this Section 2.4.6.

The Design Description for CDS includes the following key attributes:

- The CDS provides feedwater at the required temperature, pressure, and flow rate to the deaerator. Condensate is pumped from the main condenser hotwell by the condensate pumps and passes through the low-pressure feedwater heaters to the deaerator. The circulating water system (CWS) removes heat from the condenser and is site specific starting from the interface at the locations where the CWS piping enters and exits the turbine building.

- The component locations of the CDS are shown in Table 2.4.6-3. Note, the CDS has no simplified figure.

The DC for this ITAAC is not demonstrated through the ITA and AC of other ITAAC. However, it is still appropriate to remove the functional arrangement ITAAC for the CDS. The CDS has no safety-related or defense-in-depth functions. The CDS components are not required for any features or functions credited for mitigation of design basis events, nor are there any CDS features or functions that have been identified as candidates for additional regulatory oversight per UFSAR Section 16.3. The CDS components are tested in the ITP, as described in UFSAR Subsection 14.2.9.4.1, which provides verification that the as-installed system properly functions. Therefore, the functional arrangement ITAAC is proposed to be removed.

2.21. In-Core Instrumentation System (IIS)

COL Appendix C (and plant-specific Tier 1) Table 2.5.5-2 includes ITAAC No. 564 (ITAAC 2.5.05.01), the IIS functional arrangement ITAAC:

Table 2.5.5-2
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the IIS is as described in the Design Description of this Section 2.5.5.	Inspection of the as-built system will be performed.	The as-built IIS conforms with the functional arrangement as described in the Design Description of this Section 2.5.5.

The Design Description for IIS includes the following key attributes:

- The IIS provides safety-related core exit thermocouple signals to the PMS.
- The IIS provides nonsafety-related core exit thermocouple signals to the diverse actuation system (DAS).
- The core exit thermocouples are housed in the core instrument assemblies. Multiple core instrument assemblies are used to provide radial coverage of the core. At least three core instrument assemblies are provided in each core quadrant.
- Note, the IIS has no simplified figure nor table of component locations.

The DC for this ITAAC is largely demonstrated through the ITA and AC of other ITAAC. See below for a list of the functional ITAAC associated with IIS components that demonstrate the design commitment of the IIS functional arrangement ITAAC (Index No. 564, ITAAC 2.5.05.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Incore Flux Elements for Assembly IIS-JY-01	IIS-JE-NE1B07 through -NE7B07	2.5.05.04 (572)	ITAAC #572 includes testing of the retrievability of the parameters in the MCR. The displays identified in Table 2.5.5-1 can be retrieved in the MCR which includes these components; no additional information is verified by completion of the functional arrangement ITAAC.
Incore Flux Elements for Assembly IIS-JY-02	IIS-JE-NE1B09 through -NE7B09		
Incore Flux Elements for Assembly IIS-JY-03	IIS-JE-NE1C04 through -NE7C04		
Incore Flux Elements for Assembly IIS-JY-04	IIS-JE-NE1C06 through -NE7C06		
Incore Flux Elements for Assembly IIS-JY-05	IIS-JE-NE1C08 through -NE7C08		
Incore Flux Elements for Assembly IIS-JY-06	IIS-JE-NE1C10 through -NE7C10	2.5.05.04 (572)	ITAAC #572 includes testing of the retrievability of the parameters in the MCR. The displays identified in Table 2.5.5-1 can be retrieved in the MCR which includes these components; no additional information is verified by completion of the functional arrangement ITAAC.
Incore Flux Elements for Assembly IIS-JY-07	IIS-JE-NE1C12 through -NE7C12		
Incore Flux Elements for Assembly IIS-JY-08	IIS-JE-NE1E02 through -NE7E02		
Incore Flux Elements for Assembly IIS-JY-10	IIS-JE-NE1E06 through -NE7E06		
Incore Flux Elements for Assembly IIS-JY-11	IIS-JE-NE1E08 through -NE7E08		
Incore Flux Elements for Assembly IIS-JY-12	IIS-JE-NE1E10 through -NE7E10		
Incore Flux Elements for Assembly IIS-JY-14	IIS-JE-NE1E14 through -NE7E14		
Incore Flux Elements for Assembly IIS-JY-15	IIS-JE-NE1G02 through -NE7G02		
Incore Flux Elements for Assembly IIS-JY-16	IIS-JE-NE1G04 through -NE7G04		
Incore Flux Elements for Assembly IIS-JY-17	IIS-JE-NE1G06 through -NE7G06		
Incore Flux Elements for Assembly IIS-JY-18	IIS-JE-NE1G08 through -NE7G08		
Incore Flux Elements for Assembly IIS-JY-19	IIS-JE-NE1G10 through -NE7G10		
Incore Flux Elements for Assembly IIS-JY-20	IIS-JE-NE1G12 through -NE7G12		
Incore Flux Elements for Assembly IIS-JY-21	IIS-JE-NE1G14 through -NE7G14		
Incore Flux Elements for Assembly IIS-JY-22	IIS-JE-NE1J02 through -NE7J02		
Incore Flux Elements for Assembly IIS-JY-23	IIS-JE-NE1J04 through -NE7J04		
Incore Flux Elements for Assembly IIS-JY-24	IIS-JE-NE1J06 through -NE7J06		

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Incore Flux Elements for Assembly IIS-JY-25	IIS-JE-NE1J08 through -NE7J08		
Incore Flux Elements for Assembly IIS-JY-26	IIS-JE-NE1J10 through -NE7J10		
Incore Flux Elements for Assembly IIS-JY-27	IIS-JE-NE1J12 through -NE7J12		
Incore Flux Elements for Assembly IIS-JY-28	IIS-JE-NE1J14 through -NE7J14		
Incore Flux Elements for Assembly IIS-JY-29	IIS-JE-NE1L02 through -NE7L02		
Incore Flux Elements for Assembly IIS-JY-31	IIS-JE-NE1L06 through -NE7L06	2.5.05.04 (572)	ITAAC #572 includes testing of the retrievability of the parameters in the MCR. The displays identified in Table 2.5.5-1 can be retrieved in the MCR which includes these components; no additional information is verified by completion of the functional arrangement ITAAC.
Incore Flux Elements for Assembly IIS-JY-32	IIS-JE-NE1L08 through -NE7L08		
Incore Flux Elements for Assembly IIS-JY-33	IIS-JE-NE1L10 through -NE7L10		
Incore Flux Elements for Assembly IIS-JY-35	IIS-JE-NE1L14 through -NE7L14		
Incore Flux Elements for Assembly IIS-JY-36	IIS-JE-NE1N04 through -NE7N04		
Incore Flux Elements for Assembly IIS-JY-37	IIS-JE-NE1N06 through -NE7N06		
Incore Flux Elements for Assembly IIS-JY-38	IIS-JE-NE1N08 through -NE7N08		
Incore Flux Elements for Assembly IIS-JY-39	IIS-JE-NE1N10 through -NE7N10		
Incore Flux Elements for Assembly IIS-JY-40	IIS-JE-NE1N12 through -NE7N12		
Incore Flux Elements for Assembly IIS-JY-41	IIS-JE-NE1P07 through -NE7P07		
Incore Flux Elements for Assembly IIS-JY-42	IIS-JE-NE1P09 through -NE7P09		
Core Exit Thermocouple (CET) B07 for Assembly IIS-JY-01	IIS-JE-TE001		
CET B09 for Assembly IIS-JY-02	IIS-JE-TE002		
CET C04 for Assembly IIS-JY-03	IIS-JE-TE003		
CET C06 for Assembly IIS-JY-04	IIS-JE-TE004		
CET C08 for Assembly IIS-JY-05	IIS-JE-TE005		

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
CET C10 for Assembly IIS-JY-06	IIS-JE-TE006		
CET C12 for Assembly IIS-JY-07	IIS-JE-TE007		
CET E02 for Assembly IIS-JY-08	IIS-JE-TE008		
CET E06 for Assembly IIS-JY-10	IIS-JE-TE010		
CET E08 for Assembly IIS-JY-11	IIS-JE-TE011		
CET E10 for Assembly IIS-JY-12	IIS-JE-TE012	2.5.05.04 (572)	ITAAC #572 includes testing of the retrievability of the parameters in the MCR. The displays identified in Table 2.5.5-1 can be retrieved in the MCR which includes these components; no additional information is verified by completion of the functional arrangement ITAAC.
CET E14 for Assembly IIS-JY-14	IIS-JE-TE014		
CET G02 for Assembly IIS-JY-15	IIS-JE-TE015		
CET G04 for Assembly IIS-JY-16	IIS-JE-TE016		
CET G06 for Assembly IIS-JY-17	IIS-JE-TE017		
CET G08 for Assembly IIS-JY-18	IIS-JE-TE018		
CET G10 for Assembly IIS-JY-19	IIS-JE-TE019		
CET G12 for Assembly IIS-JY-20	IIS-JE-TE020		
CET G14 for Assembly IIS-JY-21	IIS-JE-TE021		
CET J02 for Assembly IIS-JY-22	IIS-JE-TE022		
CET J04 for Assembly IIS-JY-23	IIS-JE-TE023		
CET J06 for Assembly IIS-JY-24	IIS-JE-TE024		
CET J08 for Assembly IIS-JY-25	IIS-JE-TE025		
CET J10 for Assembly IIS-JY-26	IIS-JE-TE026		
CET J12 for Assembly IIS-JY-27	IIS-JE-TE027		
CET J14 for Assembly IIS-JY-28	IIS-JE-TE028		
CET L02 for Assembly IIS-JY-29	IIS-JE-TE029		

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
CET L06 for Assembly IIS-JY-31	IIS-JE-TE031		
CET L08 for Assembly IIS-JY-32	IIS-JE-TE032		
CET L10 for Assembly IIS-JY-33	IIS-JE-TE033		
CET L14 for Assembly IIS-JY-35	IIS-JE-TE035		
CET N04 for Assembly IIS-JY-36	IIS-JE-TE036		
CET N06 for Assembly IIS-JY-37	IIS-JE-TE037	2.5.05.04 (572)	ITAAC #572 includes testing of the retrievability of the parameters in the MCR. The displays identified in Table 2.5.5-1 can be retrieved in the MCR which includes these components; no additional information is verified by completion of the functional arrangement ITAAC.
CET N08 for Assembly IIS-JY-38	IIS-JE-TE038		
CET N10 for Assembly IIS-JY-39	IIS-JE-TE039		
CET N12 for Assembly IIS-JY-40	IIS-JE-TE040		
CET P07 for Assembly IIS-JY-41	IIS-JE-TE041		
CET P09 for Assembly IIS-JY-42	IIS-JE-TE042		

The IIS contains a number of components not listed in the above table that are outside the scope of ITAAC: the four assemblies and core exit thermocouples that provide non-safety-related information to DAS. The IIS safety-related functions are performed by components that are shown to be covered by other ITAAC in the above table. The IIS has no defense-in-depth functions. The additional components not tested in ITAAC are tested in the ITP, as described in UFSAR Subsection 14.2.9.1.13, which provides verification that the as-installed system properly functions. These components are not required for any features or functions credited for mitigation of design basis events, nor are there any IIS features or functions that have been identified as candidates for additional regulatory oversight per UFSAR Section 16.3.

It is appropriate to remove the functional arrangement ITAAC for the IIS because the functional testing ITAAC referenced above will demonstrate that the equipment necessary to perform the safety-related functions are appropriately arranged, and the additional IIS components not tested by other ITAAC are tested in the ITP. Therefore, the functional arrangement ITAAC is proposed to be removed.

2.22. Special Monitoring System (SMS)

COL Appendix C (and plant-specific Tier 1) Table 2.5.6-1 includes ITAAC No. 573 (ITAAC 2.5.06.01), the SMS functional arrangement ITAAC:

Table 2.5.6-1 Inspections, Tests, Analyses, and Acceptance Criteria		
Design Commitment	**Inspections, Tests, Analyses**	**Acceptance Criteria**
1. The functional arrangement of the SMS is as described in the Design Description of this Section 2.5.6.	Inspection of the as-built system will be performed.	The as-built SMS conforms with the functional arrangement as described in the Design Description of this Section 2.5.6.

The Design Description for SMS includes the following key attributes:

- The SMS monitors the reactor coolant system (RCS) for the occurrence of impacts characteristic of metallic loose parts. Metal impact monitoring sensors are provided to monitor the RCS at the upper and lower head region of the reactor pressure vessel, and at the reactor coolant inlet region of each steam generator.

- Note, the SMS has no simplified figure nor table of component locations.

The DC for this ITAAC is demonstrated through the ITA and AC of other ITAAC. See below for a list of the functional ITAAC associated with SMS components that demonstrate the design commitment of the SMS functional arrangement ITAAC (Index No. 573, ITAAC 2.5.06.01).

Equipment Name	**Tag No.**	**Functional ITAAC Number (Index Number)**	**Logic for Functional ITAAC Coverage of FA**
Metal Impact Monitoring Cabinet	SMS-JD-M1M01	2.5.06.02 (574)	ITAAC #574 retrieves data from the metal impact monitoring sensors in the MCR, which requires these components; no additional information is verified by completion of the functional arrangement ITAAC.
Reactor Upper Head Accelerometers	SMS-JE-YE001 through YE003		
Reactor Lower Head Accelerometers	SMS-JE-YE004 through YE006		
RCP Accelerometers	SMS-JE-YE007 through YE010		
SG Accelerometers	SMS-JE-YE011 through YE016		
Reactor Upper Head Vibration Sensor Preamps	SMS-JD-MIP01 through MIP03		
Reactor Lower Head Vibration Sensor Preamps	SMS-JD-MIP04 through MIP06		
RCP Vibration Sensor Preamps	SMS-JD-MIP07 through MIP10	2.5.06.02 (574)	ITAAC #574 retrieves data from the metal impact monitoring sensors in the MCR, which requires these components; no
SG Vibration Sensor Preamps	SMS-JD-MIP11 through MIP16		

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
			additional information is verified by completion of the functional arrangement ITAAC.

As the functional arrangement of the SMS is verified by other ITAAC, the functional arrangement ITAAC itself does not provide any additional information and is proposed to be removed.

2.23. Seismic Monitoring System (SJS)

COL Appendix C (and plant-specific Tier 1) Table 2.5.9-1 includes ITAAC No. 575 (ITAAC 2.5.09.01), the SJS functional arrangement ITAAC:

Table 2.5.9-1
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the SJS is as described in the Design Description of this Section 2.5.9.	Inspection of the as-built system will be performed.	The as-built SJS conforms with the functional arrangement as described in the Design Description of this Section 2.5.9.

The Design Description for SJS includes the following key attributes:

- The SJS provides for the collection of seismic data in digital format, analysis of seismic data, notification of the operator if the ground motion exceeds a threshold value, and notification of the operator (after analysis of data) that a predetermined cumulative absolute velocity (CAV) has been exceeded.

- The SJS has at least four triaxial acceleration sensor units and a time-history analyzer and recording system. The time-history analyzer and recording system are located in the auxiliary building.

- Note, the SJS has no simplified figure nor table of component locations.

The DC for this ITAAC is not demonstrated through the ITA and AC of other ITAAC. However, it is still appropriate to remove the functional arrangement ITAAC for the SJS. The SJS has no safety-related or defense-in-depth functions. The SJS components are not required for any features or functions credited for mitigation of design basis events, nor are there any SJS features or functions that have been identified as candidates for additional regulatory oversight per UFSAR Section 16.3. The SJS components are tested in the ITP,

as described in UFSAR Subsection 14.2.9.4.15, which provides verification that the as-installed system properly functions. Therefore, the functional arrangement ITAAC is proposed to be removed.

2.24. Main ac Power System (ECS)

COL Appendix C (and plant-specific Tier 1) Table 2.6.1-4 includes ITAAC No. 578 (ITAAC 2.6.01.01), the ECS functional arrangement ITAAC:

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

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the ECS is as described in the Design Description of this Section 2.6.1.	Inspection of the as-built system will be performed.	The as-built ECS conforms with the functional arrangement as described in the Design Description of this Section 2.6.1.

The Design Description for ECS includes the following key attributes:

- The ECS provides electrical ac power to nonsafety-related loads and non-Class 1E power to the Class 1E battery chargers and regulating transformers during normal and off-normal conditions.
- The ECS is as shown in Figure 2.6.1-1 and the component locations of the ECS are as shown in Table 2.6.1-5.

The DC for this ITAAC is largely demonstrated through the ITA and AC of other ITAAC. See below for a list of the functional ITAAC associated with ECS components in Figure 2.6.1-1 and Table 2.6.1-5 that demonstrate the design commitment of the ECS functional arrangement ITAAC (Index No. 578, ITAAC 2.6.01.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
6900V-480Y/277V Transformer for Load Center 12	ECS-ET-12	2.1.02.09c (44)	ITAAC #44 tests the ability of the PMS to trip the pressurizer heater groups, which requires a wiring path that involves these components; no additional
Pressurizer Heaters Backup Group A MCC 124	ECS-EC-124		

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
6900V-480Y/277V Transformer for Load Center 14	ECS-ET-14		information is verified by completion of the functional arrangement ITAAC.
Annex Bldg 480 VAC Load Center 14	ECS-EK-14		
Pressurizer Heaters Control Group MCC 142	ECS-EC-142		
Pressurizer Heaters Backup Group C MCC 143	ECS-EC-143		
Pressurizer Heaters Backup Group B MCC 224	ECS-EC-224		
Annex Bldg 480 VAC Load Center 24	ECS-EK-24		
Pressurizer Heaters Backup Group D MCC 243	ECS-EC-243		
Bus Duct, GCB to Main Step-up Transformer (MSU)	ZAS-EB-B01	2.1.02.13a (63)	ITAAC #63 tests the ability to trip the RCPs from the MCR, which requires a wiring path that involves these components; no additional information is verified by completion of the functional arrangement ITAAC.
Bus Duct, GCB to MSU Transformer 1A	ZAS-EB-B01A		
Bus Duct, GCB to MSU Transformer 1B	ZAS-EB-B01B		
Bus Duct, GCB to MSU Transformer 1C	ZAS-EB-B01C		
Main Step-up Transformer, A Phase	ZAS-ET-1A		
Main Step-up Transformer, B Phase	ZAS-ET-1B		
Main Step-up Transformer, C Phase	ZAS-ET-1C		
Bus Duct, Unit Auxiliary Transformers	ZAS-EB-B02		
Bus Duct, Unit Auxiliary Transformer A	ZAS-EB-B03A		
Bus Duct, Unit Auxiliary Transformer B	ZAS-EB-B03B		
Unit Auxiliary Transformer A	ZAS-ET-2A	2.1.02.13a (63)	ITAAC #63 tests the ability to trip the RCPs from the MCR, which requires a wiring path that involves these
Unit Auxiliary Transformer B	ZAS-ET-2B		

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Bus Duct, ECS-ES-5 Main Feed	ZAS-EB-B2AX		components; no additional information is verified by completion of the functional arrangement ITAAC.
Bus Duct, ECS-ES-3 Main Feed	ZAS-EB-B2AY		
Bus Duct, ECS-ES-6 Main Feed	ZAS-EB-B2BX		
Bus Duct, ECS-ES-4 Main Feed	ZAS-EB-B2BY		
6900 V Switchgear Bus 3	ECS-ES-3		
RCP 1A Circuit Breaker	ECS-ES-31		
RCP 1A VFD	ECS-EV-31		
RCP 1A Circuit Breaker	ECS-ES-32		
RCP 1A VFD Switchgear	ECS-ES-33		
6900 V Switchgear Bus 4	ECS-ES-4		
RCP 1B Circuit Breaker	ECS-ES-41		
RCP 1B VFD	ECS-EV-41		
RCP 1B Circuit Breaker	ECS-ES-42		
RCP 1B VFD Switchgear	ECS-ES-43		
6900 V Switchgear Bus 5	ECS-ES-5		
RCP 2A Circuit Breaker	ECS-ES-51		
RCP 2A VFD	ECS-EV-51		
RCP 2A Circuit Breaker	ECS-ES-52		
RCP 2A VFD Switchgear	ECS-ES-53		
6900 V Switchgear Bus 6	ECS-ES-6		
RCP 2B Circuit Breaker	ECS-ES-61		
RCP 2B VFD	ECS-EV-61		
RCP 2B Circuit Breaker	ECS-ES-62		
RCP 2B VFD Switchgear	ECS-ES-63		
Ctmt 480 VAC MCC 132	ECS-EC-132	2.2.03.10 (206)	ITAAC #206, part 11.a.ii stroke tests Accumulator A Discharge Isolation Valve, PXS-PL-V027A, from the MCR, which requires a wiring path that involves these components; no additional information is verified by completion of the functional arrangement ITAAC.
Ctmt 480 VAC MCC 232	ECS-EC-232		
Reserve Auxiliary Transformer A	ZAS-ET-4A	2.2.04.09a.ii (241)	ITAAC #241 tests the FWS Pump A, FWS-MP-03A, by both starting and tripping the pump from the MCR, which
Reserve Auxiliary Transformer B	ZAS-ET-4B		

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Bus Duct, ECS-ES-1 Reserve Feed	ZAS-EB-B4AX		requires a wiring path that involves these components; no additional information is verified by completion of the functional arrangement ITAAC.
Bus Duct, ECS-ES-5 Reserve Feed	ZAS-EB-B4AX		
Bus Duct, ECS-ES-3 Reserve Feed	ZAS-EB-B4AY		
Bus Duct, ECS-ES-2 Reserve Feed	ZAS-EB-B4BX		
Bus Duct, ECS-ES-4 Reserve Feed	ZAS-EB-B4BY		
6900 V Switchgear Bus 1	ECS-ES-1		
6900 V Switchgear Bus 2	ECS-ES-2		
Bus Duct, ECS-ES-1 Main Feed	ZAS-EB-B2AX	2.3.01.03.ii (281)	ITAAC #281 part 3 tests the CCS Pump A, CCS-MP-01A, from the MCR, which requires a wiring path that involves these components; no additional information is verified by completion of the functional arrangement ITAAC.
Bus Duct, ECS-ES-2 Main Feed	ZAS-EB-B2BX		
Annex Bldg 480 VAC Load Center 12	ECS-EK-12	2.4.01.02 (493)	ITAAC #493, part 3 tests the FWS Pump Isolation Valve, FWS-PL-V013A, from the MCR, which requires a wiring path that involves these components; no additional information is verified by completion of the functional arrangement ITAAC.
TB 480 VAC MCC 122	ECS-EC-122		
6900V-480Y/277V Transformer for Load Center 22	ECS-ET-22		
Annex Bldg 480 VAC Load Center 22	ECS-EK-22		
TB 480 VAC MCC 222	ECS-EC-222		
Main Turbine Generator	ZAS-MG-01	2.4.02.02a (497)	ITAAC #497, part 2.a trips the main turbine generator; no additional information is verified by completion of the functional arrangement ITAAC.

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Ancillary Diesel Generator #1	ECS-MG-01	2.6.01.04d (587)	ITAAC #587 performs load testing of the ancillary diesel generators; no additional information is verified by completion of the functional arrangement ITAAC.
Ancillary Diesel Generator #2	ECS-MG-02		
Annex Bldg 480 VAC MCC 211	ECS-EC-211	2.6.01.04e (588)	ITAAC #588 part 4.a verifies an electrical path from the ES2 bus to the battery room exhaust fan, VXS-MA-09B, which includes the wiring path for this component; no additional information is verified by completion of the functional arrangement ITAAC.
Generator Circuit Breaker (GCB)	ZAS-ES-01	2.6.01.04e (588)	ITAAC #588 part 4.f tests the generator circuit breaker; no additional information is verified by completion of the functional arrangement ITAAC.
Aux Bldg 480 VAC MCC 121	ECS-EC-121	2.6.03.04c (603)	ITAAC #603, part 5.a performs load testing of the IDS 24-hour battery charger, IDSC-DC-1, which includes a wiring path that involves these components; no additional information is verified by completion of the functional arrangement ITAAC.
Aux Bldg 480 VAC MCC 221	ECS-EC-221		
Ancillary Diesel Generator Distribution Panel 1	ECS-ED-01	2.6.03.05d.i (613)	ITAAC #613 inspects the connections for the two ancillary diesel generators, which includes the wiring path for these components; no additional information is verified by completion of the
PCS Recirculation Pump A Local Starter	PCS-MP-01A (04)		
PCS Recirculation Pump A Transfer Switch	PCS-MP-01A (43)		

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Ancillary Diesel Generator Distribution Panel 2	ECS-ED-02		functional arrangement ITAAC.
PCS Recirculation Pump B Local Starter	PCS-MP-01B (04)		
PCS Recirculation Pump B Transfer Switch	PCS-MP-01B (43)		
6900V-480Y/277V Transformer for Load Center 11	ECS-ET-11	2.7.02.03a (703)	ITAAC #703, part 4 tests the components in Table 2.7.2-1 from the MCR, which requires a wiring path that involves these components; no additional information is verified by completion of the functional arrangement ITAAC.
Annex Bldg 480 VAC Load Center 11	ECS-EK-11		
Aux Bldg 480 VAC MCC 112	ECS-EC-112		
6900V-480Y/277V Transformer for Load Center 13	ECS-ET-13		
Annex Bldg 480 VAC Load Center 13	ECS-EK-13		
Aux Bldg 480 VAC MCC 133	ECS-EC-133		
6900V-480Y/277V Transformer for Load Center 21	ECS-ET-21		
Annex Bldg 480 VAC Load Center 21	ECS-EK-21		
Annex Bldg 480 VAC MCC 212	ECS-EC-212		
6900V-480Y/277V Transformer for Load Center 23	ECS-ET-23		
Annex Bldg 480 VAC Load Center 23	ECS-EK-23		
Aux Bldg 480 VAC MCC 233	ECS-EC-233		
6900V-480Y/277V Transformer for Load Center 24	ECS-ET-24		
Annex Bldg 480 VAC MCC 111	ECS-EC-111	2.7.03.03 (710)	ITAAC #710, part 3 tests the switchgear room AHU fan, VXS-MA-02A, from the MCR, which requires a wiring path that involves this component; no additional information is verified by

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
			completion of the functional arrangement ITAAC.
DG Bldg 480 VAC MCC 123	ECS-EC-123	2.7.04.03 (716)	ITAAC #716, part 3 tests the DG oil transfer module enclosure exhaust fans, VZS-MY-V03A/B, from the MCR, which requires a wiring path that involves this component; no additional information is verified by completion of the functional arrangement ITAAC.
DG Bldg 480 VAC MCC 223	ECS-EC-223		
Annex Bldg 480 VAC MCC 141	ECS-EC-141	2.7.05.02.i (719)	ITAAC #719, part 2.ii tests supply fans VAS-MA-01A and -05A, which requires a wiring path that involves this component; no additional information is verified by completion of the functional arrangement ITAAC.
Annex Bldg 480 VAC MCC 241	ECS-EC-241		
Annex Bldg 480 VAC MCC 131	ECS-EC-131	2.7.06.03.i, Item 4 (726)	ITAAC #726, part 4 tests the containment exhaust fan, VFS-MA-02A, from the MCR, which requires a wiring path that involves these components; no additional information is verified by completion of the functional arrangement ITAAC.
Annex Bldg 480 VAC MCC 231	ECS-EC-231		

The ECS contains several components not listed in the above table that are outside the scope of ITAAC. The ECS safety-related and defense-in-depth functions do not rely on these components. These components are tested in the Initial Test Program (ITP) as described in UFSAR Subsection 14.2.9.2.15, which provides verification that the as-installed system properly functions. These components are not required for any features or functions credited for mitigation of design basis events, nor are there any ECS features or functions that have been identified as candidates for additional regulatory oversight per UFSAR Section 16.3.

It is appropriate to remove the functional arrangement ITAAC for the ECS because the functional testing ITAAC referenced above will demonstrate that the equipment necessary to perform the safety-related and defense-in-depth functions are appropriately arranged, and the additional ECS components not tested by other ITAAC are tested in the ITP. Therefore, the functional arrangement ITAAC is proposed to be removed.

2.25. Onsite Standby Power System (ZOS)

COL Appendix C (and plant-specific Tier 1) Table 2.6.4-1 includes ITAAC No. 621 (ITAAC 2.6.04.01), the ZOS functional arrangement ITAAC:

Table 2.6.4-1
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the ZOS is as described in the Design Description of this Section 2.6.4.	Inspection of the as-built system will be performed.	The as-built ZOS conforms with the functional arrangement as described in the Design Description of this Section 2.6.4

The Design Description for ZOS includes the following key attributes:

- The ZOS provides backup ac electrical power for non-safety related loads during normal and off-normal conditions.
- The ZOS has two standby diesel generator units and the component locations of the ZOS are as shown in Table 2.6.4-2.
- The centerline of the diesel engine exhaust gas discharge is located more than twenty (20) feet higher than that of the combustion air intake.

The DC for this ITAAC is demonstrated through the ITA and AC of other ITAAC, specifically the integrated system testing ITAAC. Functional testing demonstrates that the required components exist and that they are connected in a manner needed to perform the intended function. See below for a list of the ITAAC that demonstrate the design commitment of the ZOS functional arrangement ITAAC (Index No. 621, ITAAC 2.6.04.01)

Component Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Onsite Diesel Generator A Package	ZOS-MS-05A	2.6.04.02a (622)	ITAAC #622 parts 2.a) and 2.b) test the as-built system to confirm the diesel generator functions as designed, including that it reaches and maintains designed voltage and frequency. The location and function of the diesel generator is verified through this ITAAC; no additional information is verified by completion of the functional arrangement ITAAC.
Onsite Diesel Generator B Package	ZOS-MS-05B		

The height differential between the centerline of the diesel engine exhaust gas discharge and the combustion air intake is an attribute of the design description that is not covered by another ITAAC. It is still appropriate to remove the functional arrangement ITAAC for ZOS because this specific detail does not meet the threshold for design information necessary to show via ITAAC closure per UFSAR Section 14.3.2.1. The functional testing ITAAC referenced above will demonstrate that the diesel generators run as required and perform their defense-in-depth functions, and the height differential of 20 feet is an equipment reliability design feature and is not required to verify the function of the components. Therefore, the functional arrangement ITAAC is proposed to be removed.

2.26. Nuclear Island Nonradioactive Ventilation System (VBS)

COL Appendix C (and plant-specific Tier 1) Table 2.7.1-4 includes ITAAC No. 677 (ITAAC 2.7.01.01), the VBS functional arrangement ITAAC:

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

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the VBS is as described in the Design Description of this Section 2.7.1.	Inspection of the as-built system will be performed.	The as-built VBS conforms with the functional arrangement as described in the Design Description of this Section 2.7.1.

The Design Description for VBS includes the following key attributes:

- The VBS serves the MCR, control support area (CSA), Class 1E dc equipment rooms, Class 1E I&C rooms, Class 1E electrical penetration rooms, Class 1E battery rooms, remote shutdown room (RSR), reactor coolant pump trip switchgear rooms, adjacent corridors, and passive containment cooling system (PCS) valve room during normal plant operation.

- The VBS consists of the following independent subsystems: the main control room/control support area HVAC subsystem, the class 1E electrical room HVAC subsystem, and the passive containment cooling system valve room heating and ventilation subsystem.

- The VBS provides heating, ventilation, and cooling to the areas served when ac power is available.

- The system provides breathable air to the control room and maintains the main control room and control support area areas at a slightly positive pressure with respect to the adjacent rooms and outside environment during normal operations.

- The VBS monitors the MCR supply air for radioactive particulate and iodine concentrations and provides filtration of main control room/control support area air during conditions of abnormal “High-1” airborne radioactivity.

- The VBS can also provide filtered exhaust for the radiologically controlled area ventilation system (VAS) during abnormal conditions.

- The VBS is as shown in Figure 2.7.1-1 Sheets 1 and 2 and the component locations of the VBS are as shown in Table 2.7.1-5.

The DC for this ITAAC is largely demonstrated through the ITA and AC of other ITAAC. See below for a list of the functional ITAAC associated with VBS components in Figure 2.7.1-1 and Table 2.7.1-5 that demonstrate the design commitment of the VBS functional arrangement ITAAC (Index No. 677, ITAAC 2.7.01.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Supplemental Air Filtration Units	VBS-MS-01A/B	2.7.01.14 (700)	ITAAC #700 part 8.d tests the components in Table 2.7.1-3; no additional information is verified by completion of the functional arrangement ITAAC.
MCR/CSA Supply Air Handling Units (AHUs)	VBS-MS-02A/B		
Division "A" and "C" Class 1E Electrical Room AHUs	VBS-MS-03A/C		
Division "B" and "D" Class 1E Electrical Room AHU B	VBS-MS-03B/D		
Division "A&C" Class 1E Battery Room Exhaust Fans	VBS-MA-07A/C		
Division "B&D" Class 1E Battery Room Exhaust Fan	VBS-MA-07B/D		
MCR Ancillary Fans	VBS-MA-10A/B		
Division B Ancillary Fan	VBS-MA-11		
Division C Ancillary Fan	VBS-MA-12		

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
MCR Toilet Exhaust Fan	VBS-MA-04	2.2.05.07a.i (265)	ITAAC #265 part 7.b.i performs testing of the VES. The toilet exhaust fans are isolated and verified as part of this test; no additional information is verified by completion of the functional arrangement ITAAC.
CSA Toilet Exhaust Fan	VBS-MA-09		
MCR Supply Air Isolation Valves	VBS-PL-V186/V187	2.7.01.05.i (684)	ITAAC #684 part 5.i verifies the seismic Category I equipment identified in Table 2.7.1-1 is installed in the correct location; no \additional information is verified by completion of the functional arrangement ITAAC.
MCR Return Air Isolation Valves	VBS-PL-V188/V189		
MCR Exhaust Air Isolation Valves	VBS-PL-V190/V191		

The VBS contains one component not listed in the above table that are outside the scope of ITAAC: the PCS valve room vent fan. The VBS safety-related and defense-in-depth functions do not rely on this component. This component is tested in the Initial Test Program (ITP) as described in UFSAR Subsection 14.2.9.2.10, which provides verification that the as-installed system properly functions. This component is not required for any features or functions credited for mitigation of design basis events, nor are there any VBS features or functions that have been identified as candidates for additional regulatory oversight per UFSAR Section 16.3.

It is appropriate to remove the functional arrangement ITAAC for the VBS because the functional testing ITAAC referenced above will demonstrate that the equipment necessary to perform the safety-related and defense-in-depth functions are appropriately arranged, and the additional VBS component not tested by other ITAAC is tested in the ITP. Therefore, the functional arrangement ITAAC is proposed to be removed.

2.27. Central Chilled Water System (VWS)

COL Appendix C (and plant-specific Tier 1) Table 2.7.2-2 includes ITAAC No. 701 (ITAAC 2.7.02.01), the VWS functional arrangement ITAAC:

Table 2.7.2-2 Inspections, Tests, Analyses, and Acceptance Criteria		
Design Commitment	**Inspections, Tests, Analyses**	**Acceptance Criteria**
1. The functional arrangement of the VWS is as described in the Design Description of this Section 2.7.2.	Inspection of the as-built system will be performed.	The as-built VWS conforms with the functional arrangement as described in the Design Description of this Section 2.7.2.

The Design Description for VWS includes the following key attributes:

- The plant heating, ventilation, and air conditioning (HVAC) systems require chilled water as a cooling medium to satisfy the ambient air temperature requirements for the plant. The VWS supplies chilled water to the HVAC systems and is functional during reactor full-power and shutdown operation.

- The VWS also provides chilled water to selected process systems.

- The VWS is as shown in Figure 2.7.2-1 and the component locations of the VWS are as shown in Table 2.7.2-3.

The DC for this ITAAC is largely demonstrated through the ITA and AC of other ITAAC. See below for a list of the functional ITAAC associated with VWS components in Figure 2.7.2-1 and Table 2.7.2-3 that demonstrate the design commitment of the VWS functional arrangement ITAAC (Index No. 701, ITAAC 2.7.02.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Air Cooled Chillers	VWS -MS-02/03	2.7.02.03.a (703)	ITAAC #703 part 3.a tests the flow rates to the chilled water cooling coils, which involves all components listed; no additional information is verified by completion of the functional arrangement ITAAC.
Air Cooled Chiller Pumps	VWS-MP-02/03		
Air Cooled Chiller Water Valves	VWS -PL-V210/V253		
MCR/CSA Supply AHU	VBS-MY-C01A/B		
Class 1E Electrical Equipment Room AHUs	VBS-MY-C02A/B/C/D		
CVS Pump Room Unit Coolers	VAS-MY-C07A/B		
CVS Pump Room Unit Cooler Fans	VAS-MA-07A/B		
RNS Pump Room Unit Coolers	VAS-MY-C06A/C06B/C12A/C12B		
RNS Pump Room Unit Cooler Fans	VAS-MA-08A/B		

The VWS contains several components not listed in the above table that are outside the scope of ITAAC: two water chillers and their associated pumps. The VWS safety-related and defense-in-depth functions do not rely on these components. These components are tested in the Initial Test Program (ITP) as described in UFSAR Subsection 14.2.9.2.9, which provides verification that the as-installed system properly functions. These components are not required for any features or functions credited for mitigation of design basis events, nor are there any VWS features or functions that have been identified as candidates for additional regulatory oversight per UFSAR Section 16.3.

It is appropriate to remove the functional arrangement ITAAC for the VWS because the functional testing ITAAC referenced above will demonstrate that the equipment necessary to perform the safety-related and defense-in-depth functions are appropriately arranged, and the additional four VWS components not tested by other ITAAC are tested in the ITP. Therefore, the functional arrangement ITAAC is proposed to be removed.

2.28. Annex / Auxiliary Buildings Nonradioactive Ventilation System (VXS)

COL Appendix C (and plant-specific Tier 1) Table 2.7.3-2 includes ITAAC No. 707 (ITAAC 2.7.03.01), the VXS functional arrangement ITAAC:

Table 2.7.3-2
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the VXS is as described in the Design Description of this Section 2.7.3.	Inspection of the as-built system will be performed.	The as-built VXS conforms with the functional arrangement described in the Design Description of this Section 2.7.3.

The Design Description for VXS includes the following key attributes:

- The VXS serves the nonradioactive personnel and equipment areas, electrical equipment rooms, clean corridors, the ancillary diesel generator room and demineralized water deoxygenating room in the annex building, and the main steam isolation valve compartments, reactor trip switchgear rooms, and piping and electrical penetration areas in the auxiliary building.

- The VXS consists of the following independent subsystems: the general area HVAC subsystem, the switchgear room HVAC subsystem, the equipment room HVAC subsystem, the MSIV compartment HVAC subsystem, the mechanical equipment area HVAC subsystem and the valve/piping penetration room HVAC subsystem.

- The VXS is as shown in Figure 2.7.3-1 and the component locations of the VXS are as shown in Table 2.7.3-3.

The DC for this ITAAC is demonstrated through the ITA and AC of other ITAAC, specifically the testing and inspections performed for VXS, which include functional testing that

demonstrates the required components exist and that they are connected in a manner needed to perform the intended function. See below for a list of the functional ITAAC associated with VXS components in Table 2.7.3-3 that demonstrate the design commitment of the VXS functional arrangement ITAAC (Index No. 707, ITAAC 2.7.03.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Annex Building Equipment Room AHU A	VXS-MS-02A	2.7.03.03 (710)	ITAAC #710 part 3 tests these AHUs using controls in the MCR. The location and function of the AHUs are verified through this ITAAC; no additional information is verified by completion of the functional arrangement ITAAC.
Annex Building Equipment Room AHU B	VXS-MS-02B		
Swithchgear Room AHU A	VXS-MS-05A		
Swithchgear Room AHU B	VXS-MS-05B		

The VXS contains a number of components not listed in the above table that are outside the scope of ITAAC. The VXS does not have any safety-related functions, and the only defense-in-depth function is to maintain the design temperatures of the diesel bus switchgear rooms and battery charger rooms, to support operation of the ZOS. The necessary equipment to achieve this defense-in-depth function are the annex building equipment room AHUs and switchgear room AHUs, which are tested in ITAAC #710. The remaining VXS components in Figure 2.7.3-1 and Table 2.7.3-3 are tested in the Initial Test Program (ITP) as described in UFSAR Subsection 14.2.9.2.21, which provides verification that the as-installed system properly functions. The VXS does not have any features or functions credited for mitigation of design basis events, nor are there any features or functions that have been identified as candidates for additional regulatory oversight per UFSAR Section 16.3.

It is appropriate to remove the functional arrangement ITAAC for the VXS because the functional testing ITAAC referenced above will demonstrate that the equipment necessary to perform the defense-in-depth functions are appropriately arranged, and the additional VXS equipment in Figure 2.7.3-1 and Table 2.7.3-3 are tested in the ITP. Therefore, the functional arrangement ITAAC is proposed to be removed.

2.29. Diesel Generator Building Ventilation System (VZS)

COL Appendix C (and plant-specific Tier 1) Table 2.7.4-2 includes ITAAC No. 712 (ITAAC 2.7.04.01), the VZS functional arrangement ITAAC:

Table 2.7.4-2
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the VZS is as described in the Design Description of this Section 2.7.4.	Inspection of the as-built system will be performed.	The as-built VZS conforms with the functional arrangement as described in the Design Description of this Section 2.7.4.

The Design Description for VZS includes the following key attributes:

- The VZS provides ventilation cooling of the diesel generator building for the onsite standby power system. The VZS also provides heating and ventilation within the diesel oil transfer module enclosure. The VZS consists of the following subsystems: the normal diesel building heating and ventilation subsystem, the standby diesel building exhaust ventilation subsystem, the fuel oil day tank vault exhaust subsystem and the diesel oil transfer module enclosures ventilation and heating subsystem.

- The VZS is as shown in Figure 2.7.4-1 Sheets 1 and 2 and the component locations of the VZS are as shown in Table 2.7.4-3.

The DC for this ITAAC is largely demonstrated through the ITA and AC of other ITAAC. See below for a list of the functional ITAAC associated with VZS components in Figure 2.7.4-1 and Table 2.7.4-3 that demonstrate the design commitment of the VZS functional arrangement ITAAC (Index No. 712, ITAAC 2.7.04.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Service Module AHUs	VZS-MS-01A/B	2.7.04.03 (716)	ITAAC #716 part 3 tests these components using controls in the MCR; no additional information is verified by completion of the functional arrangement ITAAC.
Diesel Oil Transfer Module Enclosure Exhaust Fans	VZS-MY-V03A/B		
Diesel Oil Transfer Module Enclosure Unit Heaters	VZS-MY-U03A/B		
D/G Building Standby Exhaust Fans	VZS-MY-V01A/V01B/V02A/V02B		

The VZS contains several components not listed in the above table that are outside the scope of ITAAC: the fuel oil day tank vault exhaust fans. The VZS has no safety-related functions, and the VZS defense-in-depth functions do not rely on these components. These components are tested in the Initial Test Program (ITP) as described in UFSAR Subsection 14.2.9.2.17, which provides verification that the as-installed system properly functions. These components are not required for any features or functions credited for mitigation of design basis events, nor are there any VZS features or functions that have been identified as candidates for additional regulatory oversight per UFSAR Section 16.3.

It is appropriate to remove the functional arrangement ITAAC for the VZS because the functional testing ITAAC referenced above will demonstrate that the equipment necessary to perform the safety-related and defense-in-depth functions are appropriately arranged, and the additional two VZS components not tested by other ITAAC are tested in the ITP. Therefore, the functional arrangement ITAAC is proposed to be removed.

2.30. Radiologically Controlled Area Ventilation System (VAS)

COL Appendix C (and plant-specific Tier 1) Table 2.7.5-2 includes ITAAC No. 718 (ITAAC 2.7.05.01), the VAS functional arrangement ITAAC:

Table 2.7.5-2
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the VAS is as described in the Design Description of this Section 2.7.5.	Inspection of the as-built system will be performed.	The as-built VAS conforms with the functional arrangement as described in the Design Description of this Section 2.7.5.

The Design Description for VAS includes the following key attributes:

- The VAS serves the fuel handling area of the auxiliary building, and the radiologically controlled portions of the auxiliary and annex buildings.
- The VAS consists of two subsystems: the auxiliary/annex building ventilation subsystem and the fuel handling area ventilation subsystem.
- The component locations of the VAS are as shown in Table 2.7.5-3. Note, the VAS has no simplified figure.

The DC for this ITAAC is demonstrated through the ITA and AC of other ITAAC, specifically the testing and inspections performed for VAS, which include functional testing that demonstrates the required components exist and that they are connected in a manner needed to perform the intended function. See below for a list of the functional ITAAC associated with VAS components in Table 2.7.5-3 that demonstrate the design commitment of the VAS functional arrangement ITAAC (Index No. 718, ITAAC 2.7.05.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Auxiliary/Annex Building Supply Air Handling Unit (AHU) A	VAS-MS-01A	2.7.05.02.i (719)	ITAAC #719 part 2 includes a test that confirms the VAS maintains each building at a slightly negative pressure when operating all VAS supply AHUs and all VAS exhaust fans. The location and function of the supply AHUs and exhaust fans are verified through this ITAAC; no additional information is verified by completion of the functional arrangement ITAAC.
Auxiliary/Annex Building Supply AHU B	VAS-MS-01B		
Fuel Handling Area Supply AHU A	VAS-MS-02A		
Fuel Handling Area Supply AHU B	VAS-MS-02B		
Auxiliary/Annex Building Exhaust Fan A	VAS-MA-02A		
Auxiliary/Annex Building Exhaust Fan B	VAS-MA-02B		

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
CVS Pump Room Unit Cooler A	VAS-MS-05A	2.7.02.03a (703)	ITAAC #703 includes a test that measures the chilled water supplied to the CVS and RNS pumps Unit Coolers. The location and function of the CVS and RNS Unit Coolers are verified through this ITAAC; no additional information is verified by completion of the functional arrangement ITAAC.
CVS Pump Room Unit Cooler B	VAS-MS-05B		
RNS Pump Room Unit Cooler A	VAS-MS-06A		
RNS Pump Room Unit Cooler B	VAS-MS-06B		
Fuel Handling Area Exhaust Fan A	VAS-MA-06A		
Fuel Handling Area Exhaust Fan B	VAS-MA-06B		

As the functional arrangement of the VAS is verified by other ITAAC, the functional arrangement ITAAC itself does not provide any additional information and is proposed to be removed.

2.31. Containment Air Filtration System (VFS)

COL Appendix C (and plant-specific Tier 1) Table 2.7.6-2 includes ITAAC No. 723 (ITAAC 2.7.06.01), the VFS functional arrangement ITAAC:

Table 2.7.6-2
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the VFS is as described in the Design Description of this Section 2.7.6.	Inspection of the as-built system will be performed.	The as-built VFS conforms with the functional arrangement as described in the Design Description of this Section 2.7.6.

The Design Description for VFS includes the following key attributes:

- The VFS provides intermittent flow of outdoor air to purge and filter the containment atmosphere of airborne radioactivity during normal plant operation, and continuous flow during hot or cold plant shutdown conditions to reduce airborne radioactivity levels for personnel access.

- The VFS is as shown in Figure 2.7.6-1 and the component locations of the VFS are as shown in Table 2.7.6-3.

The DC for this ITAAC is demonstrated through the ITA and AC of other ITAAC. See below for a list of the functional ITAAC associated with VFS components in Figure 2.7.6-1 and Table 2.7.6-3 that demonstrate the design commitment of the VFS functional arrangement ITAAC

(Index No. 723, ITAAC 2.7.06.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Containment Air Filtration Supply AHUs	VFS-MS-01A/B	2.7.06.03.i (726)	ITAAC #726 parts 3.i) and 3.ii) test the flow rate of the AHUs when operated with their respective exhaust units; no additional information is verified by completion of the functional arrangement ITAAC.
Containment Air Filtration Exhaust Units	VFS-MS-02A/B		

As the functional arrangement of the VFS is verified by other ITAAC, the functional arrangement ITAAC itself does not provide any additional information and is proposed to be removed.

2.32. Containment Recirculation Cooling System (VCS)

COL Appendix C (and plant-specific Tier 1) Table 2.7.7-2 includes ITAAC No. 731 (ITAAC 2.7.07.01), the VCS functional arrangement ITAAC:

Table 2.7.7-2
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the VCS is as described in the Design Description of this Section 2.7.7.	Inspection of the as-built system will be performed.	The as-built VCS conforms with the functional arrangement as described in the Design Description of this Section 2.7.7.

The Design Description for VCS includes the following key attributes:

- The containment recirculation cooling system (VCS) controls the containment air temperature and humidity during normal operation, refueling and shutdown.
- The locations of the VCS are as shown in Table 2.7.7-3. Note, the VCS has no simplified figure.

The DC for this ITAAC is demonstrated through the ITA and AC of other ITAAC. See below for a list of the functional ITAAC associated with VCS components in Table 2.7.7-3. that demonstrate the design commitment of the VCS functional arrangement ITAAC (Index No. 731, ITAAC 2.7.07.01).

Equipment Name	Tag No.	Functional ITAAC Number (Index Number)	Logic for Functional ITAAC Coverage of FA
Reactor Containment Recirculation Fan Coil Unit Assemblies	VCS-MS-01A/B/C/D	2.7.07.02 (732)	ITAAC #732 inspects for the retrievability of displays in the MCR of parameters identified in Table 2.7.7-1; no additional information is verified by completion of the functional arrangement ITAAC.

As the functional arrangement of the VCS is verified by other ITAAC, the functional arrangement ITAAC itself does not provide any additional information and is proposed to be removed.

Licensing Basis Change Descriptions

The following functional arrangement ITAAC are proposed to be removed from the associated ITAAC table:

- Fuel Handling and Refueling System (FHS) – ITAAC 2.1.01.01, Index No. 1
- Component Cooling Water System (CCS) – ITAAC 2.3.01.01, Index No. 278
- Chemical and Volume Control System (CVS) – ITAAC 2.3.02.01, Index No. 284
- Standby Diesel Fuel Oil System (DOS) – ITAAC 2.3.03.01, Index No. 318
- Fire Protection System (FPS) – ITAAC 2.3.04.01, Index No. 326
- Mechanical Handling System (MHS) – ITAAC 2.3.05.01, Index No. 339
- Normal Residual Heat Removal System (RNS) – ITAAC 2.3.06.01, Index No. 354
- Spent Fuel Pool Cooling System (SFS) – ITAAC 2.3.07.01, Index No. 391
- Service Water System (SWS) – ITAAC 2.3.08.01, Index No. 414
- Containment Hydrogen Control System (VLS) – ITAAC 2.3.09.01, Index No. 420
- Liquid Radwaste System (WLS) – ITAAC 2.3.10.01, Index No. 430
- Gaseous Radwaste System (WGS) – ITAAC 2.3.11.01, Index No. 449
- Solid Radwaste System (WSS) – ITAAC 2.3.12.01, Index No. 456
- Primary Sampling System (PSS) – ITAAC 2.3.13.01, Index No. 458

- Demineralized Water Transfer and Storage System (DWS) – ITAAC 2.3.14.01, Index No. 477
- Compressed and Instrumentation Air System (CAS) – ITAAC 2.3.15.01, Index No. 481
- Radioactive Waste Drain System (WRS) – ITAAC 2.3.29.01, Index No. 488
- Main and Startup Feedwater System (FWS) – ITAAC 2.4.01.01, Index No. 492
- Main Turbine System (MTS) – ITAAC 2.4.02.01, Index No. 496
- Condensate System (CDS) – ITAAC 2.4.06.01, Index No. 503
- In-Core Instrumentation System (IIS) – ITAAC 2.5.05.01, Index No. 564
- Special Monitoring System (SMS) – ITAAC 2.5.06.01, Index No. 573
- Seismic Monitoring System (SJS) – ITAAC 2.5.09.01, Index No. 575
- Main ac Power System (ECS) – ITAAC 2.6.01.01, Index No. 578
- Onsite Standby Power System (ZOS) – ITAAC 2.6.04.01, Index No. 621
- Nuclear Island Nonradioactive Ventilation System (VBS) – ITAAC 2.7.01.01, Index No. 677
- Central Chilled Water System (VWS) – ITAAC 2.7.02.01, Index No. 701
- Annex / Auxiliary Buildings Nonradioactive Ventilation System (VXS) – ITAAC 2.7.03.01, Index No. 707
- Diesel Generator Building Ventilation System (VZS) – ITAAC 2.7.04.01, Index No. 712
- Radiologically Controlled Area Ventilation System (VAS) – ITAAC 2.7.05.01, Index No. 718
- Containment Air Filtration System (VFS) – ITAAC 2.7.06.01, Index No. 723
- Containment Recirculation Cooling System (VCS) – ITAAC 2.7.07.01, Index No. 731

Supporting Technical Details:

The functional arrangement ITAAC described above are proposed to be removed because other ITA and AC cover the DC for each functional arrangement ITAAC or the DC is otherwise proven to be unnecessary. Submittal of ICNs based upon the current COL Appendix C (and plant-specific Tier 1) information creates regulatory inefficiencies for the Licensee and the NRC staff, as the conclusions drawn in the functional arrangement ICN, i.e. that the system

is built to conform with the design description, is verified by the ITAAC which test the functionality of the system and / or by other means.

The proposed ITAAC changes continues to meet 10 CFR Part 52 Appendix D and the COL Appendix C (and plant-specific Tier 1) design descriptions, tables and figures and 10 CFR 52.99 for ITAAC closure notification and completion. This proposed ITAAC changes do not make technical changes to the COL Appendix C (and plant-specific Tier 1) design descriptions, tables, and figures, because no SSC design function or analysis described in the UFSAR is being affected.

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

The proposed changes do not involve a change to a fission product barrier. The changes do not result in a new failure mode, malfunction, or sequence of events that could affect safety. The changes would not allow for a new fission product release path, result in a new fission product barrier failure mode, or create a new sequence of events that would result in significant fuel cladding failures.

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

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

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

SRP, because the ITAAC that bound the functional arrangement ITAAC continue to meet the ITAAC selection criteria and provide verification that the as-built facility conforms to the approved plant design and applicable regulations.

Summary

The proposed changes optimize functional arrangement ITAAC in COL Appendix C (and plant-specific Tier 1) Tables by removing those functional arrangement. The above-mentioned licensing basis changes will also result in a change to the COL Appendix C (and corresponding plant-specific Tier 1) table of contents. The required inspections, tests, and analyses to show the design commitments are met are still being performed, and as such, the margin of safety is not reduced.

3. TECHNICAL EVALUATION (Included in Section 2)

4. REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

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

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.

10 CFR 52.97(b) requires that the Commission shall identify within the combined license the inspections, tests, and analyses, including those applicable to emergency planning, that the licensee shall perform, and the acceptance criteria that, if met, are necessary and sufficient to provide reasonable assurance that the facility has been constructed and will be operated in conformity with the license, the provisions of the Act, and the Commission's rules and regulations. Based on the technical evaluations provided in Section 2 above, the proposed changes to functional arrangement ITAAC continue to meet the requirements of 10 CFR 52.97(b).

4.2 Precedent

No precedent is identified.

4.3 Significant Hazards Consideration Determination

The proposed changes would require non-technical changes to COL Appendix C information. These changes remove a number of functional arrangement ITAAC to improve efficiency of the ITAAC completion and closure process.

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

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

Response: No

The proposed non-technical change to COL Appendix C will remove a number of functional arrangement ITAAC to improve efficiency of the ITAAC completion and closure process. 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 changes to COL Appendix C do not affect the design or function of any SSC but will remove a number of functional arrangement ITAAC to improve efficiency of the ITAAC completion and closure process. The proposed changes would not introduce a new failure mode, fault or sequence of events that could result in a radioactive material release.

Therefore, the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

Response: No

The proposed changes to COL Appendix C will remove a number of functional arrangement ITAAC to improve efficiency of the ITAAC completion and closure process, and would not affect any design parameter, function or analysis. There would be no change to an existing design basis, design function, regulatory

criterion, or analysis. No safety analysis or design basis acceptance limit or criterion is involved.

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

Based on the above, it is concluded that the proposed amendment does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

4.4 Conclusions

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public. Pursuant to 10 CFR 50.92, the requested change does not involve a Significant Hazards Consideration Determination.

5. ENVIRONMENTAL CONSIDERATIONS

The proposed changes would require non-technical changes to COL Appendix C information. The changes remove a number of functional arrangement ITAAC to improve efficiency of the ITAAC completion and closure process.

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

(i) There is no significant hazards consideration.

As documented in Section 4.3, Significant Hazards Consideration Determination, of this license amendment request, an evaluation was completed to determine whether or not a significant hazards consideration is involved by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment." The Significant Hazards Consideration Determination determined that (1) the proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated; (2) the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated; and (3) the proposed amendment does not involve a significant reduction in a margin of safety. Therefore, it is concluded that the proposed amendment does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of "no significant hazards consideration" is justified.

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

The proposed change to COL Appendix C to is remove a number of functional arrangement ITAAC to create a more efficient process for the ITAAC Closure Notification submittals. The proposed changes are unrelated to any aspect of plant construction or

operation that would introduce any change to effluent types (e.g., effluents containing chemicals or biocides, sanitary system effluents, and other effluents), or affect any plant radiological or non-radiological effluent release quantities. Furthermore, the proposed changes do not affect any effluent release path or diminish the functionality of any design or operational features that are credited with controlling the release of effluents during plant operation. Therefore, it is concluded that the proposed amendment does not involve a significant change in the types or a significant increase in the amounts of any effluents that may be released offsite.

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

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

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

6. REFERENCES

1. Regulatory Guide 1.206, Revision 0, “Combined License Applications for Nuclear Power Plants”

2. NEI 08-01, Revision 5 - Corrected, “Industry Guideline for the ITAAC Closure Process under 10 CFR Part 52”

Southern Nuclear Operating Company

ND-17-0213

Enclosure 2

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

Exemption Request:

Functional Arrangement ITAAC Optimization (LAR-19-002)

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

1.0 Purpose

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

The following plant-specific ITAAC items are proposed to be identified as "Not Used" in the identified plant-specific Tier 1 tables, as shown in Enclosure 3 of this letter:

1. Tier 1 Table 2.1.1-1, ITAAC Item 1 – FHS Functional Arrangement
2. Tier 1 Table 2.3.1-2, ITAAC Item 1 – CCS Functional Arrangement
3. Tier 1 Table 2.3.2-4, ITAAC Item 1 – CVS Functional Arrangement
4. Tier 1 Table 2.3.3-2, ITAAC Item 1 – DOS Functional Arrangement
5. Tier 1 Table 2.3.4-2, ITAAC Item 1 – FPS Functional Arrangement
6. Tier 1 Table 2.3.5-2, ITAAC Item 1 – MHS Functional Arrangement
7. Tier 1 Table 2.3.6-4, ITAAC Item 1 – RNS Functional Arrangement
8. Tier 1 Table 2.3.7-4, ITAAC Item 1 – SFS Functional Arrangement
9. Tier 1 Table 2.3.8-2, ITAAC Item 1 – SWS Functional Arrangement
10. Tier 1 Table 2.3.9-3, ITAAC Item 1 – VLS Functional Arrangement
11. Tier 1 Table 2.3.10-4, ITAAC Item 1 – WLS Functional Arrangement
12. Tier 1 Table 2.3.11-2, ITAAC Item 1 – WGS Functional Arrangement
13. Tier 1 Table 2.3.12-2, ITAAC Item 1 – WSS Functional Arrangement
14. Tier 1 Table 2.3.13-3, ITAAC Item 1 – PSS Functional Arrangement
15. Tier 1 Table 2.3.14-2, ITAAC Item 1 – DWS Functional Arrangement
16. Tier 1 Table 2.3.15-2, ITAAC Item 1 – CAS Functional Arrangement
17. Tier 1 Table 2.3.29-1, ITAAC Item 1 – WRS Functional Arrangement
18. Tier 1 Table 2.4.1-2, ITAAC Item 1 – FWS Functional Arrangement
19. Tier 1 Table 2.4.2-1, ITAAC Item 1 – MTS Functional Arrangement
20. Tier 1 Table 2.4.6-2, ITAAC Item 1 – CDS Functional Arrangement
21. Tier 1 Table 2.5.5-2, ITAAC Item 1 – IIS Functional Arrangement
22. Tier 1 Table 2.5.6-1, ITAAC Item 1 – SMS Functional Arrangement
23. Tier 1 Table 2.5.9-1, ITAAC Item 1 – SJS Functional Arrangement
24. Tier 1 Table 2.6.1-4, ITAAC Item 1 – ECS Functional Arrangement
25. Tier 1 Table 2.6.4-14, ITAAC Item 1 – ZOS Functional Arrangement
26. Tier 1 Table 2.7.1-4, ITAAC Item 1 – VBS Functional Arrangement
27. Tier 1 Table 2.7.2-2, ITAAC Item 1 – VWS Functional Arrangement
28. Tier 1 Table 2.7.3-24, ITAAC Item 1 – VXS Functional Arrangement
29. Tier 1 Table 2.7.4-2, ITAAC Item 1 – VZS Functional Arrangement

30. Tier 1 Table 2.7.5-2, ITAAC Item 1 – VAS Functional Arrangement
31. Tier 1 Table 2.7.6-1, ITAAC Item 1 – VFS Functional Arrangement
32. Tier 1 Table 2.7.7-2, ITAAC Item 1 – VCS Functional Arrangement

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

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. The proposed changes would remove a number of functional arrangement ITAAC contained in plant-specific Tier 1.

During preparation and submittal of ITAAC Closure Notifications (ICNs), and through feedback by the Commission during review of the ICNs, SNC identified efficiencies to the ICN submittal process, including ITAAC which contain redundant information and are proposed to be removed. Submittal of ICNs based upon the current plant-specific Tier 1 information creates additional regulatory burden on the Licensee and the NRC staff. The identified efficiencies would remove a number of functional arrangement ITAAC to improve efficiency of the ITAAC completion and closure process. 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 certified (Tier 1) design information is requested to allow plant-specific departures to be taken from the Tier 1 ITAAC Tables listed in Section 1.0 of this Enclosure.

3.0 Technical Justification of Acceptability

An exemption is requested to depart from AP1000 Generic DCD Tier 1 material in regard to the AP1000 by removing ITAAC that contain redundant information. The proposed ITAAC changes continue to meet the intent of 10 CFR Part 52 Appendix D and plant-specific Tier 1 design descriptions, tables and figures. The proposed exemption would allow a change to the plant-specific Tier 1 ITAAC information consistent with existing plant-specific DCD Tier 2 information. The proposed changes 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 impact the ability to meet the design functions of the SSCs nor involve a significant decrease in the level of safety provided by the structures, systems, or components. Because the proposed changes 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.

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

4.0 Justification of Exemption

10 CFR 52, Appendix D, Section VIII.A.4, 10 CFR 52.63(b)(1), and 52.98(f) govern the issuance of exemptions from elements of the certified design information for AP1000 nuclear power plants. 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 satisfies the criteria for granting specific exemptions, as described below.

1. This exemption is authorized by law

The NRC has authority under 10 CFR 52.63, §52.7, and §50.12 to grant exemptions from the requirements of NRC regulations. Specifically, 10 CFR 50.12 and §52.7 state that the NRC may grant exemptions from the requirements of 10 CFR Part 52 upon a proper showing. No law exists that would preclude the changes covered by this exemption request. Additionally, granting of the proposed exemption does not result in a violation of the Atomic Energy Act of 1954, as amended, or the Commission's regulations.

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

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

The proposed exemption from the requirements of 10 CFR 52, Appendix D, Section III.B, would allow changes to elements of the plant-specific DCD Tier 1 to depart from the AP1000 certified (Tier 1) design information. The plant-specific DCD Tier 1 will continue to reflect the approved licensing basis for VEGP Units 3 and 4 and will maintain a consistent level of detail with that which is currently provided elsewhere in Tier 1 of the DCD. Therefore, the affected plant-specific DCD Tier 1 ITAAC will continue to serve its required purpose.

These changes will not impact the ability of the SSCs to perform their design functions. Because the changes will not alter the operation of any plant equipment or systems, these changes do not present an undue risk to existing equipment or systems. These changes do not add any new equipment or system interfaces to the current plant design.

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

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

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

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

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

4. Special circumstances are present

10 CFR 50.12(a)(2) lists six "special circumstances" for which an exemption may be granted. Pursuant to the regulation, it is necessary for one of these special circumstances to be present in order for the NRC to consider granting an exemption request. The requested exemption meets the special circumstances of 10 CFR 50.12(a)(2)(ii). That subsection defines special circumstances as when "Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule."

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

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

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

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

The proposed exemption would allow changes to remove ITAAC that contain redundant information in plant-specific Tier 1. The consolidation will not impact the functional capabilities of the components identified in the affected ITAAC. Because the removal of the 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 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 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

None.

7.0 ENVIRONMENTAL CONSIDERATION

The Licensee requests a departure from elements of the certified information in Tier 1 of the generic AP1000 DCD. The Licensee has determined that the proposed departure would

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

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

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

8.0 CONCLUSION

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

9.0 REFERENCES

None.

Southern Nuclear Operating Company

ND-19-XXXX

Enclosure 3

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

Proposed Changes to the Licensing Basis Documents

(LAR-19-002)

Note:
Added text is shown as bold **Blue Underline**
Deleted text is shown as bold **~~Red Strikethrough~~**
* * * indicates omitted existing text that is not shown.

(This Enclosure consists of 12 pages, including this cover page.)

Revise COL Appendix C Table 2.1.1-1, and corresponding plant-specific Tier 1 Table 2.1.1-1, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.1.1-1
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1	2.1.01.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the FHS is as described in the Design Description of this Section 2.1.1. Not used per~~	~~Inspection of the as-built system will be performed.~~	~~The as-built FHS conforms with the functional arrangement as described in the Design Description of this Section 2.1.1.~~

Revise COL Appendix C Table 2.3.1-2, and corresponding plant-specific Tier 1 Table 2.3.1-2, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.3.1-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
278	2.3.01.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the CCS is as described in the Design Description of this Section 2.3.1.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built CCS conforms with the functional arrangement described in the Design Description of this Section 2.3.1.~~

Revise COL Appendix C Table 2.3.2-4, and corresponding plant-specific Tier 1 Table 2.3.2-4, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

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

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
284	2.3.02.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the CVS is as described in the Design Description of this Section 2.3.2.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built CVS conforms with the functional arrangement as described in the Design Description of this Section 2.3.2.~~

Revise COL Appendix C Table 2.3.3-2, and corresponding plant-specific Tier 1 Table 2.3.3-2, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.3.3-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
318	2.3.03.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the DOS is as described in the Design Description of this Section 2.3.3.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built DOS conforms with the functional arrangement as described in the Design Description of this Section 2.3.3.~~

Revise COL Appendix C Table 2.3.4-2, and corresponding plant-specific Tier 1 Table 2.3.4-2, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.3.4-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
326	2.3.04.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the FPS is as described in the Design Description of this Section 2.3.4.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built FPS conforms with the functional arrangement as described in the Design Description of this Section 2.3.4.~~

Revise COL Appendix C Table 2.3.5-2, and corresponding plant-specific Tier 1 Table 2.3.5-2, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.3.5-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
339	2.3.05.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the MHS is as described in the Design Description of this Section 2.3.5.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built MHS conforms with the functional arrangement as described in the Design Description of this Section 2.3.5.~~

Revise COL Appendix C Table 2.3.6-4, and corresponding plant-specific Tier 1 Table 2.3.6-4, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

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

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
354	2.3.06.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the RNS is as described in the Design Description of this Section 2.3.6.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built RNS conforms with the functional arrangement as described in the Design Description of this Section 2.3.6.~~

Revise COL Appendix C Table 2.3.7-4, and corresponding plant-specific Tier 1 Table 2.3.7-4, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

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

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
391	2.3.07.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the SFS is as described in the Design Description of this Section 2.3.7.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built SFS conforms with the functional arrangement as described in the Design Description of this Section 2.3.7.~~

Revise COL Appendix C Table 2.3.8-2, and corresponding plant-specific Tier 1 Table 2.3.8-2, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.3.8-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
414	2.3.08.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the SWS is as described in the Design Description of this Section 2.3.8.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built SWS conforms with the functional arrangement as described in the Design Description of this Section 2.3.8.~~

Revise COL Appendix C Table 2.3.9-3, and corresponding plant-specific Tier 1 Table 2.3.9-3, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.3.9-3
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
420	2.3.09.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the VLS is as described in the Design Description of this Section 2.3.9.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built VLS conforms with the functional arrangement as described in the Design Description of this Section 2.3.9.~~

Revise COL Appendix C Table 2.3.10-4, and corresponding plant-specific Tier 1 Table 2.3.10-4, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

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

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
430	2.3.10.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the WLS is as described in the Design Description of this Section 2.3.10.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built WLS conforms with the functional arrangement as described in the Design Description of this Section 2.3.10.~~

Revise COL Appendix C Table 2.3.11-2, and corresponding plant-specific Tier 1 Table 2.3.11-2, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.3.11-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
449	2.3.11.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the WGS is as described in the Design Description of this Section 2.3.11.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built WGS conforms with the functional arrangement as described in the Design Description of this Section 2.3.11.~~

Revise COL Appendix C Table 2.3.12-2, and corresponding plant-specific Tier 1 Table 2.3.12-2, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.3.12-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
456	2.3.12.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the WSS is as described in the Design Description of this Section 2.3.12.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built WSS conforms with the functional arrangement as described in the Design Description of this Section 2.3.12.~~

Revise COL Appendix C Table 2.3.13-3, and corresponding plant-specific Tier 1 Table 2.3.13-3, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

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

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
458	2.3.13.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the PSS is as described in the Design Description of this Section 2.3.13.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built PSS conforms with the functional arrangement as described in the Design Description of this Section 2.3.13.~~

Revise COL Appendix C Table 2.3.14-2, and corresponding plant-specific Tier 1 Table 2.3.14-2, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.3.14-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
477	2.3.14.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the DWS is as described in the Design Description of this Section 2.3.14.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built DWS conforms with the functional arrangement as described in the Design Description of this Section 2.3.14.~~

Revise COL Appendix C Table 2.3.15-2, and corresponding plant-specific Tier 1 Table 2.3.15-2, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.3.15-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
481	2.3.15.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the CAS is as described in the Design Description of this Section 2.3.15.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built CAS conforms with the functional arrangement as described in the Design Description of this Section 2.3.15.~~

Revise COL Appendix C Table 2.3.29-1, and corresponding plant-specific Tier 1 Table 2.3.29-1, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.3.29-1
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
488	2.3.29.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the WRS is as described in the Design Description of this Section 2.3.29.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built WRS conforms with the functional arrangement as described in the Design Description of this Section 2.3.29.~~

Revise COL Appendix C Table 2.4.1-2, and corresponding plant-specific Tier 1 Table 2.4.1-2, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.4.1-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
492	2.4.01.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the FWS is as described in the Design Description of this Section 2.4.1.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built FWS conforms with the functional arrangement as described in the Design Description of this Section 2.4.1.~~

Revise COL Appendix C Table 2.4.2-1, and corresponding plant-specific Tier 1 Table 2.4.2-1, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.4.2-1
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
496	2.4.02.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the MTS is as described in the Design Description of this Section 2.4.2.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built MTS conforms with the functional arrangement as described in the Design Description of this Section 2.4.2.~~

Revise COL Appendix C Table 2.4.6-2, and corresponding plant-specific Tier 1 Table 2.4.6-2, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.4.6-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
503	2.4.06.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the CDS is as described in the Design Description of this Section 2.4.6.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built CDS conforms with the functional arrangement as described in the Design Description of this Section 2.4.6.~~

Revise COL Appendix C Table 2.5.5-2, and corresponding plant-specific Tier 1 Table 2.5.5-2, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.5.5-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
564	2.5.05.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the HS is as described in the Design Description of this Section 2.5.5.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built HS conforms with the functional arrangement as described in the Design Description of this Section 2.5.5.~~

Revise COL Appendix C Table 2.5.6-1, and corresponding plant-specific Tier 1 Table 2.5.6-1, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.5.6-1
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
573	2.5.06.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the SMS is as described in the Design Description of this Section 2.5.6.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built SMS conforms with the functional arrangement as described in the Design Description of this Section 2.5.6.~~

Revise COL Appendix C Table 2.5.9-1, and corresponding plant-specific Tier 1 Table 2.5.9-1, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.5.9-1
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
575	2.5.09.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the SJS is as described in the Design Description of this Section 2.5.9.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built SJS conforms with the functional arrangement as described in the Design Description of this Section 2.5.9.~~

Revise COL Appendix C Table 2.6.1-4, and corresponding plant-specific Tier 1 Table 2.6.1-4, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

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

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
578	2.6.01.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the ECS is as described in the Design Description of this Section 2.6.1.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built ECS conforms with the functional arrangement as described in the Design Description of this Section 2.6.1.~~

Revise COL Appendix C Table 2.6.4-1, and corresponding plant-specific Tier 1 Table 2.6.4-1, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.6.4-1
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
621	2.6.04.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the ZOS is as described in the Design Description of this Section 2.6.4.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built ZOS conforms with the functional arrangement as described in the Design Description of this Section 2.6.4.~~

Revise COL Appendix C Table 2.7.1-4, and corresponding plant-specific Tier 1 Table 2.7.1-4, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

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

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
677	2.7.01.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the VBS is as described in the Design Description of this Section 2.7.1.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built VBS conforms with the functional arrangement described in the Design Description of this Section 2.7.1.~~

Revise COL Appendix C Table 2.7.2-2, and corresponding plant-specific Tier 1 Table 2.7.2-2, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.7.2-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
701	2.7.02.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the VWS is as described in the Design Description of this Section 2.7.2.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built VWS conforms with the functional arrangement described in the Design Description of this Section 2.7.2.~~

Revise COL Appendix C Table 2.7.3-2, and corresponding plant-specific Tier 1 Table 2.7.3-2, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.7.3-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
707	2.7.03.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the VXS is as described in the Design Description of this Section 2.7.3.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built VXS conforms with the functional arrangement described in the Design Description of this Section 2.7.3.~~

Revise COL Appendix C Table 2.7.4-2, and corresponding plant-specific Tier 1 Table 2.7.4-2, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.7.4-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
712	2.7.04.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the VZS is as described in the Design Description of this Section 2.7.4.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built VZS conforms with the functional arrangement described in the Design Description of this Section 2.7.4.~~

Revise COL Appendix C Table 2.7.5-2, and corresponding plant-specific Tier 1 Table 2.7.5-2, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.7.5-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
718	2.7.05.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the VAS is as described in the Design Description of this Section 2.7.5.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built VAS conforms with the functional arrangement described in the Design Description of this Section 2.7.5.~~

Revise COL Appendix C Table 2.7.6-1, and corresponding plant-specific Tier 1 Table 2.7.6-1, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.7.6-1
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
723	2.7.06.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the VFS is as described in the Design Description of this Section 2.7.6.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built VFS conforms with the functional arrangement described in the Design Description of this Section 2.7.6.~~

Revise COL Appendix C Table 2.7.7-2, and corresponding plant-specific Tier 1 Table 2.7.7-2, "Inspections, Tests, Analyses, and Acceptance Criteria" as shown below.

Table 2.7.7-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
731	2.7.07.01	Not used per Amendment No. [XXX] ~~1. The functional arrangement of the VCS is as described in the Design Description of this Section 2.7.7.~~	~~Inspection of the as-built system will be performed.~~	~~The as-built VCS conforms with the functional arrangement described in the Design Description of this Section 2.7.7.~~