

Vogle PEmails

From: Hoellman, Jordan
Sent: Wednesday, November 01, 2017 3:03 PM
To: Vogle PEmails
Subject: Pre-submittal Presentation for ITP ITAAC Consolidation LAR
Attachments: 2017-11-09 ITAAC Testing Consolidation LAR PSM Presentation.pdf

Attached is the pre-submittal presentation for LAR-17-038, ITP ITAAC Consolidation, for discussion at the 11/9/17 public meeting.

Hearing Identifier: Vogtle_COL_Docs_Public
Email Number: 179

Mail Envelope Properties (4ecd5f18b48e491b8a251488378ba9d1)

Subject: Pre-submittal Presentation for ITP ITAAC Consolidation LAR
Sent Date: 11/1/2017 3:02:30 PM
Received Date: 11/1/2017 3:02:31 PM
From: Hoellman, Jordan

Created By: Jordan.Hoellman2@nrc.gov

Recipients:
"Vogtle PEmails" <Vogtle.PEmails@nrc.gov>
Tracking Status: None

Post Office: HQPWMSMRS03.nrc.gov

Files	Size	Date & Time	
MESSAGE	141	11/1/2017 3:02:31 PM	
2017-11-09 ITAAC Testing Consolidation LAR PSM Presentation.pdf			685020

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:



Southern
Nuclear

ITAAC Testing Consolidation License Amendment Request, LAR-17-038

November 9, 2017

Topics

- Background
- LAR & Exemption Request Scope
- Technical Justification
- Consolidation Categories and Examples
- LAR Schedule

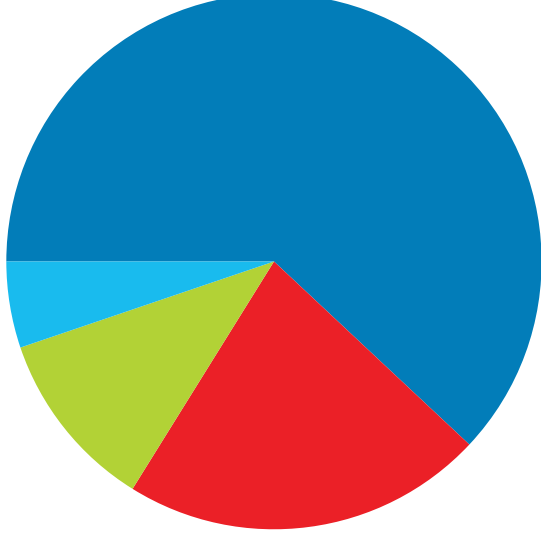
Background

- NRC feedback and lessons learned from ITAAC closure led to the submittal of LAR-17-006, the initial ITAAC Consolidation LAR
- During further review of ITAAC, it became evident that additional ITAAC require redundant paperwork for closure and efficiencies can be gained from consolidating some ITAAC
 - Primarily related to system testing

LAR & Exemption Request Scope

- Proposed scope impacts 249 ITAAC consolidated into 57 ITAAC
- Results in 192 ITAAC consolidated per unit, leading to significant reduction in regulatory burden
- Consolidation effects multiple systems. Primary disciplines impacted are the Initial Test Program (ITP), construction inspections, and Security.

Four Categories Described in LAR



- ITP ITAAC (119)
- ITP and Related Inspections ITAAC (42)
- Related Inspections and Analyses ITAAC (21)
- Security ITAAC (10)

Technical Justification

- Consolidation does not reduce margin of safety.
- Administrative Change
 - There is no change to the design commitment / inspections, tests, analyses / acceptance criteria language for each individual ITAAC by consolidating the ITAAC.
 - The required inspections, testing and analyses are still being performed by the consolidated ITAAC.
 - The scope and purpose of 103(g) finding is not impacted.
- Each host ITAAC was selected such that if any consolidated ITAAC was targeted, the host ITAAC remains targeted.
- Consolidation will reduce administrative burden.
 - Saves 384 ITAAC Closure Notification (ICN) submittals (total for both units)

Category 1—ITP ITAAC

- 274 ITAAC (referred to as “ITP ITAAC”) verify the completion of individual component and pre-operational system testing
- Of these 274 ITP ITAAC, 149 have been identified as having shared components and testing methodologies with other ITP ITAAC
 - Consolidating 149 ITAAC into 30 ITAAC
- Example types of these ITAAC:
 - Valve and pump functionality component tests
 - MCR communication with components
 - Pre-operational testing ITAAC that will be completed within the same procedure
- Minimizes potential for entry into the ICN Post-Closure Notification process

Category 1 Example

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

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
281	2.3.01.03.ii	3. The CCS provides the nonsafety-related functions of transferring heat from the RNS during shutdown and the spent fuel pool cooling system during all modes of operation to the SWS.	ii) Testing will be performed to confirm that the CCS can provide cooling water to the RNS HXs while providing cooling water to the SFS HXs.	ii) Each pump of the CCS can provide at least 2685 gpm of cooling water to one RNS HX and at least 1200 gpm of cooling water to one SFS HX while providing at least 4415 gpm to other users of cooling water.
282	2.3.01.04	4. Controls exist in the MCR to cause the pumps identified in Table 2.3.1-1 to perform the listed functions.	Testing will be performed to actuate the pumps identified in Table 2.3.1-1 using controls in the MCR.	Controls in the MCR operate to cause pumps listed in Table 2.3.1-1 to perform the listed functions.
283	2.3.01.05	5. Displays of the parameters identified in Table 2.3.1-1 can be retrieved in the MCR.	Inspection will be performed for retrievability of the parameters in the MCR.	Displays identified in Table 2.3.1-1 can be retrieved in the MCR.



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

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
281	2.3.01.03.ii	3. The CCS provides the nonsafety-related functions of transferring heat from the RNS during shutdown and the spent fuel pool cooling system during all modes of operation to the SWS.	ii) Testing will be performed to confirm that the CCS can provide cooling water to the RNS HXs while providing cooling water to the SFS HXs.	ii) Each pump of the CCS can provide at least 2685 gpm of cooling water to one RNS HX and at least 1200 gpm of cooling water to one SFS HX while providing at least 4415 gpm to other users of cooling water.
282	2.3.01.04	4. Controls exist in the MCR to cause the pumps identified in Table 2.3.1-1 to perform the listed functions.	Testing will be performed to actuate the pumps identified in Table 2.3.1-1 using controls in the MCR.	Controls in the MCR operate to cause pumps listed in Table 2.3.1-1 to perform the listed functions.
283	2.3.01.05	5. Displays of the parameters identified in Table 2.3.1-1 can be retrieved in the MCR.	Inspection will be performed for retrievability of the parameters in the MCR.	Displays identified in Table 2.3.1-1 can be retrieved in the MCR.

Corresponding Roadmap Entry:

Index Number to be removed	ITAAC Number to be removed	Consolidate with ITAAC Number		Category	Justification
		Host Index Number	Host ITAAC Number		
282	2.3.01.04	281	2.3.01.03.ii	1	Related Pre-Op and component tests
283	2.3.01.05				

Category 2—IPT and Related Inspection ITAAC

- In addition to the IPT ITAAC proposed for consolidation in Category 1, several IPT ITAAC were identified as having shared components with ITAAC that verify physical attributes of the system.
- 32 IPT ITAAC and 18 Inspection ITAAC
 - Consolidating 50 ITAAC into 8 ITAAC
- Example types of these ITAAC:
 - Inspections of physical attributes of components, i.e. existence, plant location
 - IPT component tests related to the inspected components
 - IPT pre-operational tests related to the inspected components

Category 2 Example

Table 2.3.19-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
484	2.3.19.01a	1.a) The EFS has handsets, amplifiers, loudspeakers, and siren tone generators connected as a telephone/page system.	Inspection of the as-built system will be performed.	The as-built EFS has handsets, amplifiers, loudspeakers, and siren tone generators connected as a telephone/page system.
485	2.3.19.01b	1.b) The EFS has sound-powered equipment connected as a system.	Inspection of the as-built system will be performed.	The as-built EFS has sound-powered equipment connected as a system.
486	2.3.19.02a	2.a) The EFS telephone/page system provides intraplant, station-to-station communications and area broadcasting between the MCR and the locations listed in Table 2.3.19-1.	An inspection and test will be performed on the telephone/page communication equipment.	Telephone/page equipment is installed and voice transmission and reception from the MCR are accomplished.
487	2.3.19.02b	2.b) EFS provides sound-powered communications between the MCR, the RSW, the Division A, B, C, D dc equipment rooms (Rooms 12201/12203/12205/12207), the Division A, B, C, D I&C rooms (Rooms 12301/12302/12304/12305), and the diesel generator building (Rooms 60310/60320) without external power.	An inspection and test will be performed of the sound-powered communication equipment.	Sound-powered equipment is installed and voice transmission and reception are accomplished.



Table 2.3.19-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
484	2.3.19.01a	Not used per Amendment No. XX		
485	2.3.19.01b	Not used per Amendment No. XX		
486	2.3.19.02a	1.a) The EFS has handsets, amplifiers, loudspeakers, and siren tone generators connected as a telephone/page system. 1.b) The EFS has sound-powered equipment connected as a system. 2.a) The EFS telephone/page system provides intraplant, station-to-station communications and area broadcasting between the MCR and the locations listed in Table 2.3.19-1. 2.b) EFS provides sound-powered communications between the MCR, the RSW, the Division A, B, C, D dc equipment rooms (Rooms 12201/12203/12205/12207), the Division A, B, C, D I&C rooms (Rooms 12301/12302/12304/12305), and the diesel generator building (Rooms 60310/60320) without external power.	Inspection of the as-built system will be performed. An inspection and test will be performed on the telephone/page communication equipment. An inspection and test will be performed of the sound-powered communication equipment.	The as-built EFS has handsets, amplifiers, loudspeakers, and siren tone generators connected as a telephone/page system. The as-built EFS has sound-powered equipment connected as a system. Telephone/page equipment is installed and voice transmission and reception from the MCR are accomplished. Sound-powered equipment is installed and voice transmission and reception are accomplished.
487	2.3.19.02b	Not used per Amendment No. XX		

Corresponding Roadmap Entry:

Index Number to be removed	Consolidate with ITAAC Number		Category	Justification
	ITAAC Number to be removed	Host ITAAC Number		
484	2.3.19.01a	486	2	Related Pre-Op tests with related inspections
485	2.3.19.01b			
487	2.3.19.02b			

Category 3—Related Inspections and Analyses ITAAC

- A number of ITAAC verify physical attributes of various components and systems that are unrelated to ITP tests
- These Related Inspections and Analyses ITAAC require completion of the same or similar inspections, tests outside of ITP scope, and/or analyses in order to close each individual ITAAC
- 32 ITAAC have been identified as requiring similar inspections, tests outside of ITP scope, analyses, or a combination thereof, with other individual ITAAC
 - Consolidating 32 ITAAC into 11 ITAAC
- Example types of these ITAAC:
 - Component elevation
 - Tank volume
 - Component arrangement

Category 3 Example

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

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
36	2.1.02.08d.v	8.d) The RCS provides automatic depressurization during design basis events.	v) Inspections of the elevation of the ADS stage 4 valve discharge will be conducted.	v) The minimum elevation of the bottom inside surface of the outlet of these valves is greater than plant elevation 110 feet.
37	2.1.02.08d.vi	8.d) The RCS provides automatic depressurization during design basis events.	vi) Inspections of the ADS stage 4 valve discharge will be conducted.	vi) The discharge of the ADS stage 4 valves is directed into the steam generator compartments.
38	2.1.02.08d.vii	8.d) The RCS provides automatic depressurization during design basis events.	vii) Inspection of each ADS sparger will be conducted to determine the flow area through the sparger holes.	vii) The flow area through the holes in each ADS sparger is $\geq 274 \text{ in}^2$.
39	2.1.02.08d.viii	8.d) The RCS provides automatic depressurization during design basis events.	viii) Inspection of the elevation of each ADS sparger will be conducted.	viii) The centerline of the connection of the sparger arms to the sparger hub is ≤ 11.5 feet below the IRWST overflow level.



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

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
36	2.1.02.08d.v	8.d) The RCS provides automatic depressurization during design basis events.	v) Inspections of the elevation of the ADS stage 4 valve discharge will be conducted. vi) Inspections of the ADS stage 4 valve discharge will be conducted. vii) Inspection of each ADS sparger will be conducted to determine the flow area through the sparger holes. viii) Inspection of the elevation of each ADS sparger will be conducted.	v) The minimum elevation of the bottom inside surface of the outlet of these valves is greater than plant elevation 110 feet. vi) The discharge of the ADS stage 4 valves is directed into the steam generator compartments. vii) The flow area through the holes in each ADS sparger is $\geq 274 \text{ in}^2$. viii) The centerline of the connection of the sparger arms to the sparger hub is ≤ 11.5 feet below the IRWST overflow level.
37	2.1.02.08d.vi	Not used per Amendment No. XX		
38	2.1.02.08d.vii	Not used per Amendment No. XX		
39	2.1.02.08d.viii	Not used per Amendment No. XX		

Corresponding Roadmap Entry:

Index Number to be removed	ITAAC Number to be removed	Consolidate with ITAAC Number		Category	Justification
		Host Index Number	Host ITAAC Number		
37	2.1.02.08d.vi	36	2.1.02.08d.v	3	Related inspections
38	2.1.02.08d.vii				
39	2.1.02.08d.viii				

Category 4—Security ITAAC

- A number of ITAAC verify physical attributes and system capabilities within the security system
- 18 ITAAC have been identified as requiring similar inspections, tests outside of ITP scope, analyses, or a combination thereof, with other individual ITAAC between standard plant and site-specific ITAAC
 - Consolidating 18 ITAAC into 8 ITAAC
- Example types of these ITAAC:
 - Component location
 - Component capabilities
 - System capabilities

Category 4 Example

Table C.2.6.9-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
661	C.2.6.09.03b	3.b) The isolation zones are monitored with intrusion detection equipment that provides the capability to detect and assess unauthorized persons.	Inspections will be performed of the intrusion detection equipment within the isolation zones.	The isolation zones are equipped with intrusion detection equipment that provides the capability to detect and assess unauthorized persons.
662	C.2.6.09.04a	4. The intrusion detection and assessment equipment at the protected area perimeter: a) detects penetration or attempted penetration of the protected area barrier and concurrently alarms in both the Central Alarm Station and Secondary Alarm Station;	Tests, inspections or a combination of tests and inspections of the intrusion detection and assessment equipment at the protected area perimeter and its uninterruptible power supply will be performed.	The intrusion detection and assessment equipment at the protected area perimeter: a) detects penetration or attempted penetration of the protected area barrier and concurrently alarms in the Central Alarm Station and Secondary Alarm Station.
663	C.2.6.09.04b	4. The intrusion detection and assessment equipment at the protected area perimeter: b) remains operable from an uninterruptible power supply in the event of the loss of normal power.	Tests, inspections or a combination of tests and inspections of the intrusion detection and assessment equipment at the protected area perimeter and its uninterruptible power supply will be performed.	The intrusion detection and assessment equipment at the protected area perimeter: b) remains operable from an uninterruptible power supply in the event of the loss of normal power.



Table C.2.6.9-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
661	C.2.6.09.03b	3.b) The isolation zones are monitored with intrusion detection equipment that provides the capability to detect and assess unauthorized persons. 4. The intrusion detection and assessment equipment at the protected area perimeter: a) detects penetration or attempted penetration of the protected area barrier and concurrently alarms in both the Central Alarm Station and Secondary Alarm Station;	Inspections will be performed of the intrusion detection equipment within the isolation zones. Tests, inspections or a combination of tests and inspections of the intrusion detection and assessment equipment at the protected area perimeter and its uninterruptible power supply will be performed.	The isolation zones are equipped with intrusion detection equipment that provides the capability to detect and assess unauthorized persons. The intrusion detection and assessment equipment at the protected area perimeter: a) detects penetration or attempted penetration of the protected area barrier and concurrently alarms in the Central Alarm Station and Secondary Alarm Station; b) remains operable from an uninterruptible power supply in the event of the loss of normal power.
662	C.2.6.09.04a	Not used per Amendment No. XX		
663	C.2.6.09.04b	Not used per Amendment No. XX		

Corresponding Roadmap Entry:

Index Number to be removed	ITAAC Number to be removed	Consolidate with ITAAC Number		Category	Justification
		Host Index Number	Host ITAAC Number		
662	C.2.6.09.04a	661	C.2.6.09.03b	4	Related security tests and inspections
663	C.2.6.09.04b				

LAR-17-038 Schedule

- LAR & Exemption Request submittal by: 11/22/2017
- Request NRC Approval: 3/1/2018