

Expanded ITAAC Closure Notification Examples Project

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Goals

- Categorize ITAAC into groups based on unique performance characteristics
- Identify new example ICNs to further optimize the development and review of ICNs
- At least 80 percent of the AP 1000 ITAAC should utilize existing or new ICN examples to verify their completion

Current Status



- One ITAAC closure notification (ICN) template and 22 ICN examples were previously developed that are included in NEI 08-01, Rev. 4
- Six ICN examples were developed for the ITAAC Demonstration Project, 4 will be incorporated in NEI 08-01 and 2 followed existing examples

Approach

- Assign applicable AP 1000 ITAAC to existing ICN examples
- Categorize remainder of ITAAC into groups based on having very similar or identical performance characteristics
- Propose a new ICN example for each group assigned 5 or more ITAAC

Results

- 705 of the 819 AP 1000 ITAAC were categorized into 67 groups
- Staff assigned 270 ITAAC to the 26 groups for the existing ICN examples (22 already in NEI 08-01 and 4 for DOE Demonstration Project)
- Staff proposed a new ICN example for each of the 27 groups (total of 387 ITAAC) with 5 or more ITAAC in each group

Results

- 14 groups of ITAAC (total of 48 ITAAC) contained less than 5 ITAAC each, and 114 ITAAC were so unique that were not included in any group
- The 53 (26 existing + 27 proposed) groups contain 80.2% (657 ITAAC) of the total AP 1000 ITAAC

Proposed Groups

List of ICN Examples

No.	ICN Title	No. of Similar AP1000 ITAAC	Source
D1	Generic ICN template	All	NEI 08-01
	a) Verify By Inspection That Minimum Separation Distances Exist Between Class 1E Divisions, and Between Class 1E Divisions and Non-Class 1E Cables	22	NEI 08-01
	b) Verify By Inspection That If Minimum Separation Distances Are Not Met, the Circuits Are Run In Enclosed Raceways As Provided	3	NEI 08-01
D50	Verify by Inspection That Components Removes Heat from another System or Pool	5	
D51	Verify By A Test That A Specific Flow Rate Flows To or Through A Component or System	33	Proposed
D52	Verify By Evaluation (Analysis) or By Tests And Analysis That The Human Factors - HFE Verification And Validation Program Performs As Designed	5	Proposed
D53	Verify By Tests That Simulated Signals Cause Components to Actuate	7	Proposed
D54	Verify by Testing that Equipment Meets Loading Criteria	6	Proposed

Total ITAAC covered by ICN Examples

657

Group Example

- D44 - Verify by test or type test that valves can perform an active function to change position under design or preoperational conditions

Row No.	ITAAC No.	System	ITAAC FAMILY
1.	2.1.02.05a.ii	RCS	14E
2.	2.1.03.06.ii	RXS	05E
3.	2.2.01.05.ii	CNS	11E
4.	2.2.02.05a.ii	PCS	14E
5.	2.2.03.05a.ii	PXS	14E
6.	2.2.04.05a.ii	SGS	14E
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.	2.5.05.02.ii	IRS	06E
16.	2.6.01.02.ii	ECS	08E
17.	2.6.03.02.ii	IDS	08E
18.	2.7.01.05.ii	VBS	12E
19.	3.5.00.01.ii	Rad. Mon.	19E
20.	3.6.00.01.ii	RCP Leak Detection	10X

Vision

At least 5 ICN Examples to be completed and reviewed before each upcoming CIP Public Workshops until all 27 proposed examples are approved

Successful ITAAC Verification



Proposed Schedule



- ~~• Staff provide list of ITAAC groups — Complete~~
- ~~• Industry submit 1st 5 ICN examples complete~~
- Industry provide feedback on groups - 7/28/11
- Industry submit 2nd 5 ICN examples 9/29/11
- Industry submit 3rd 5 ICN examples 12/01/11
- Industry submit 4th 5 ICN examples 02/23/12
- Industry submit 5th 5 ICN examples 05/17/12
- Industry submit last 2 ICN examples 08/09/12
- Industry/NRC update NEI 08-01 to provide explicit guidance for ICNs - TBD

Expected Outcome

- Reduce uncertainty during development and review of ICNs
 - Group ITAAC based on performance characteristics
 - Develop new example ICNs for ITAAC groups
 - Standardize each new example ICN
 - Enhanced related guidance documents, NEI 08-01/ RG 1.215
- Allow an efficient and effective ITAAC closure verification