



U.S. NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

ITAAC Closure Guidance Development Workshop 3

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Workshop Objectives

- Present revised closure guidance document development schedule
- Review submitted draft Table of Contents for the industry guidance document
- Introduce 3 new ITAAC closure letter examples
- Discuss the new 10 CFR 52.99(c)(2) Rule



Workshop Series Accomplishments

- Successfully worked through two ITAAC closure letter examples, concluding:
 - Alignment on expectations of “sufficient information” and definition of “reasonable person” from Rule language
 - **ITAAC-related violations** need to be added to letter
 - Template guidance should make reference to “**reasonable person**” and indicate that “licensee will perform review of **ITAAC-related** findings”
- NRC can expect majority of draft industry guide submitted by end of March 2008.



Draft Guidance Development Schedule

- Public Meeting (Cat. 3) November 28, 2007
(3 new closure letter examples, Uncomplete ITAAC discussion)
- Public Meeting (Cat. 3) December 18, 2007
(cont. closure letters examples, Uncomplete Notification examples)
- Public Meeting (Cat. 3) January 31, 2008
(Finalize template formats)
- Public Meeting (Cat. 3) Early March 2008
- Receive majority of 1st draft from NEI End of March 2008
- Start writing draft Reg Guide Early April 2008
- Provide NEI with NRC Comments Late April 2008
- Receive 2nd draft from NEI Early June 2008
- Public Meeting (Cat. 3) September 2008
- Draft Reg Guide issued End of Dec 2008
- Issue Final Draft for Public Comment Mid February 2009
- Hold Public Meeting early in comment period Early March 2009
- End of 60 day comment period Mid April 2009
- Issue Final Guidance End of August 2009



3 New AP1000 ITAAC Closure Letter Examples

- 2.1.1-1, #4 (FHM gripper)
- 2.1.2-4, #3.b (Pressure boundary welds)
- 3.3-6, #2.a.i (Seismic Category 1 buildings)



2.1.1.-1, #4 (Simple, FHM gripper)

Design Commitment

The “Refueling Machine” (RM) and “Fuel Handling and Refueling System” (FHM) gripper assemblies are designed to prevent opening while the weight of the fuel assembly is suspended from the gripper.

Inspections, Tests, and Analyses

The RM and FHM will be tested by operating the open controls of the gripper while suspending a dummy fuel assembly.

Acceptance Criteria

The gripper will not open while suspending a dummy test assembly.



2.1.2-4, #3.b (Semi-complex, Pressure Boundary Welds)

45 pipe lines require non-destructive testing for pressure boundary welds, which involves visual, surface (e.g., magnetic particle), or volumetric (e.g., radiography) exams as specified by the ASME code and weld type.

Design Commitment

Pressure boundary welds in piping identified in Table 2.1.2-2 as ASME Code Section III meet ASME Code Section III requirements.

Inspections, Tests, and Analyses

Inspection of the as-built pressure boundary welds will be performed in accordance with the ASME Code Section III.

Acceptance Criteria

A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds.



3.3-6, #2.a.i (Complex, Seismic Category 1)

Seismic Category 1 structures house safety-related systems, and are designed and built to withstand the highest seismic event for the site.

Design Commitment

The nuclear island structures, including the critical sections listed in Table 3.3-7, are seismic Category I and are designed and constructed to withstand design basis loads as specified in the Design Description, without loss of structural integrity and the safety-related functions.

Inspections, Tests, and Analyses

An inspection of the nuclear island will be performed. Deviations from the design due to as-built conditions will be analyzed for the design basis loads.

Acceptance Criteria

A report exists which reconciles deviations during construction and concludes that the as-built nuclear island structures, including the critical sections, conform to the approved design and will withstand the design basis loads specified in the Design Description without loss of structural integrity or the safety-related functions.



Focus Area for Workshop 3: Uncompleted ITAAC - 52.99(c)(2)

- Per 52.99(c)(2), licensee shall submit notification that acceptance criteria will be met for uncompleted ITAAC 225 days before fuel load
- Key point from the public comment resolution:
 - The NRC expects that information intended to address whether an inspection, test, or analysis will occur and acceptance criteria will be met, will be different as compared with information showing that such an ITAAC has been met (possibly different in the kind of information as well as level of detail).



New Rule Language 52.99

- (c)(2) If the licensee has not provided, by the date 225 days before the scheduled date for initial loading of fuel, the notification required by paragraph (c)(1) of this section for all ITAAC, then the licensee shall notify the NRC that the prescribed inspections, tests, or analyses for all uncompleted ITAAC will be performed and that the prescribed acceptance criteria will be met prior to operation. The notification must be provided no later than the date 225 days before the scheduled date for initial loading of fuel, and must provide **sufficient information** to demonstrate that the prescribed inspections, tests, or analyses will be performed and the prescribed acceptance criteria for the uncompleted ITAAC will be met, **including, but not limited to**, a description of the specific procedures and analytical methods to be used for performing the prescribed inspections, tests, and analyses and determining that the prescribed acceptance criteria have been met.



Key Points of 52.99 Statements of Consideration (cont'd)

- For notifications on ITAAC that “will be met” [52.99(c)(2)], “**sufficient information**” includes, but is not limited to, a description of the specific procedures and analytical methods to be used for performing the inspections, tests, and analyses and determining that the acceptance criteria have been met.



Information Providing Support for a Predictive Finding

- Information addressing assurance that the specified inspections, tests, and analyses will be performed and the acceptance criteria will be met
- Based upon concept that rationale for predictive finding differs from rationale for finding on an already-completed action
- Therefore, information necessary to support the predictive finding rationale also differs



Description of Procedures and Analytical Methods

- Procedures and analytical methods for ITAAC must be ready for use (i.e., developed, finalized and documented) by 225 days before scheduled fuel load
- Commission's original intent when adopting Part 52 was that uncompleted ITAAC at 180 days before scheduled fuel load would be rare exception
- Revised 52.99 recognizes that this may not be the case



Description of Procedures and Analytical Methods

- No more detail need be provided in notifications on procedures and analytical methods for uncompleted ITAAC as compared with information on procedures and analytical methods for completed ITAAC
- An uncomplete ITAAC notification could contain a mix of completed elements and future activity, and would need to clearly state what elements of the individual ITAAC have been accomplished and what is outstanding



Assurance That ITAAC Will Be Met

- Added increment of information necessary to support rationale for predictive finding
- May be several different ways of providing assurance



Conclusions and Recommendations

- Workshop Summary
- Next steps
- Public Meeting Schedule:
 - December 18, 2007
 - January 31, 2008
 - early March 2008
- NRC would appreciate detailed feedback on the workshop format

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