



# DRAFT REGULATORY GUIDE

Contact: J. Gaslevic  
(301) 415-2776

## DRAFT REGULATORY GUIDE DG-1204 (New Regulatory Guide)

### GUIDANCE FOR ITAAC CLOSURE UNDER 10 CFR PART 52

#### A. INTRODUCTION

This guide describes a method that the staff of the U.S. Nuclear Regulatory Commission (NRC) considers acceptable for use in satisfying the requirements for documenting the completion of inspections, tests, analyses, and acceptance criteria (ITAAC). In particular, this guide endorses the methodologies described in the industry guidance document Nuclear Energy Institute (NEI) 08-01, "Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52," Revision 3, issued January 2009 (Ref. 1), for the implementation of Title 10, Section 52.99, "Inspection during construction," of the *Code of Federal Regulations* (10 CFR 52.99) (Ref. 2).

The NRC issues regulatory guides to describe to the public methods that the staff considers acceptable for use in implementing specific parts of the agency's regulations, to explain techniques that the staff uses in evaluating specific problems or postulated accidents, and to provide guidance to applicants. Regulatory guides are not substitutes for regulations and compliance with them is not required.

---

This regulatory guide is being issued in draft form to involve the public in the early stages of the development of a regulatory position in this area. It has not received final staff review or approval and does not represent an official NRC final staff position.

Public comments are being solicited on this draft guide (including any implementation schedule) and its associated regulatory analysis or value/impact statement. Comments should be accompanied by appropriate supporting data. Written comments may be submitted to the Rulemaking, Directives, and Editing Branch, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; e-mailed to [nrcprep\\_resource@nrc.gov](mailto:nrcprep_resource@nrc.gov); submitted through the NRC's interactive rulemaking Web page at <http://www.nrc.gov>; or faxed to (301) 492-3446. Copies of comments received may be examined at the NRC's Public Document Room, 11555 Rockville Pike, Rockville, MD. Comments will be most helpful if received by May 13, 2009.

Electronic copies of this draft regulatory guide are available through the NRC's interactive rulemaking Web page (see above); the NRC's public Web site under Draft Regulatory Guides in the Regulatory Guides document collection of the NRC's Electronic Reading Room at <http://www.nrc.gov/reading-rm/doc-collections/>; and the NRC's Agencywide Documents Access and Management System (ADAMS) at <http://www.nrc.gov/reading-rm/adams.html>, under Accession No. ML082960039.

---

This regulatory guide contains information collection requirements covered by 10 CFR Part 52 that the Office of Management and Budget (OMB) approved under OMB control number 3150-0151. The NRC may neither conduct nor sponsor, and a person is not required to respond to, an information collection request or requirement unless the requesting document displays a currently valid OMB control number.

## **B. DISCUSSION**

### **Background**

10 CFR 52.99 includes requirements for documenting and reporting the satisfaction of the acceptance criteria for each ITAAC in the combined license (COL).

The objective of this guide is to provide guidance on licensee notifications to the NRC for completed and uncompleted ITAAC. The NRC uses these notifications to determine whether ITAAC have been successfully completed, to facilitate public participation in the ITAAC hearing process, and for inspection planning. This draft regulatory guide describes methods that the NRC staff considers acceptable for licensees to use for documenting and reporting the satisfactory completion of the acceptance criteria for each ITAAC in the COL. This regulatory guide, through its endorsement of an industry guidance document for licensees, provides guidance on complying with the requirements of 10 CFR 52.99.

The NRC staff conducted several workshops with industry and the public on methods to satisfy 10 CFR 52.99 requirements from August 2007 through December 2008. The topics discussed during these meetings included construction activities, 10 CFR 52.99 notification submittals, inspections, allegations, and other issues related to the construction of new nuclear power plants. The NRC determined that the development of guidance on this topic would provide clarity and consistency on implementing NRC requirements.

The statement of considerations (SOC) for the final rule for 10 CFR Part 52, “Licenses, Certifications, and Approvals for Nuclear Power Plants” (Ref. 3) noted that the staff would develop regulatory guidance to clarify the requirements of 10 CFR 52.99.

### **1. Development of Industry Guideline Document NEI 08-01**

In accordance with 10 CFR 52.97(b), COLs must contain ITAAC that are necessary and sufficient to provide reasonable assurance that the facility has been constructed and will operate in accordance with the license, the Atomic Energy Act, and NRC regulations. After issuance of a COL, a licensee completes all the ITAAC contained in the COL during construction and then submits closure notification letters to the NRC pursuant to 10 CFR 52.99.

Two types of ITAAC notifications from licensees are required by 10 CFR 52.99. The first type of ITAAC notification (ITAAC closure letter) is submitted under 10 CFR 52.99(c)(1) and informs the NRC of the basis for the licensee’s determination that an ITAAC has been successfully completed. ITAAC closure letters must be submitted for all ITAAC. The second type of ITAAC notification (uncomplete ITAAC notification letter) is submitted under 10 CFR 52.99(c)(2) at least 225 days before scheduled initial fuel load and describes how all uncompleted ITAAC will be successfully completed prior to fuel load. NEI submitted numerous examples of ITAAC closure letters and uncomplete ITAAC

notifications (also called 225-day notifications) on behalf of the industry for staff review and comment during a series of workshops and public meetings in 2007 and 2008. (Refs. 4–14)

In April 2008, the NRC received the draft NEI 08-01, including example closure letters and uncomplete notifications as required by 10 CFR 52.99(c)(1) and 10 CFR 52.99(c)(2). NEI 08-01 incorporates comments representing various points of interest discussed during the public workshops. A significant portion of NEI 08-01 includes examples of ITAAC closure letters and uncomplete notifications that licensees must submit during construction. The NRC provided feedback on NEI 08-01 during public meetings held on May 6, 2008; May 13, 2008; June 17, 2008; July 10, 2008; and December 17, 2008. NEI subsequently revised the draft document to incorporate NRC staff comments.

NEI 08-01 describes methods that the staff considers acceptable for use in completing and submitting 10 CFR 52.99(c)(1) and 10 CFR 52.99(c)(2) notifications during construction of new nuclear power plants.

Operation (which includes loading fuel) cannot commence until the Commission finds under 10 CFR 52.103(g) that all acceptance criteria in the ITAAC are met. To provide a basis for the Commission's finding and to ensure that ITAAC closure notifications contain sufficient information to satisfy 10 CFR 52.99, the licensee can follow industry guideline NEI 08-01.

NEI 08-01 provides guidance for licensees on major aspects of the ITAAC closure process in the following sections:

- Introduction
- Definitions
- General Description of 10 CFR Part 52 and ITAAC Processes
  - Role of ITAAC in 10 CFR Part 52 Process
  - ITAAC Closure Process
  - General Description of Public Hearing Opportunity
  - Summary Description of 10 CFR 52.103 Process and Fuel Load Authorization Process
- Schedule Considerations for ITAAC-Related Activities and Coordination to Support NRC Inspection Planning
  - Proprietary Construction Schedule Information
  - Licensee Schedule Coordination
- Licensee Process for Review and Preparation of ITAAC Closure Letters
  - Guidance for Oversight of ITAAC Closure Activities and Maintenance of Records
  - Standard Format for ITAAC Closure Packages
  - Licensee Problem Identification and Resolution Program
- Guidance on Sufficient Information for ITAAC Closure Letters
- Guidance on Sufficient Information for 225-Day Notification of Uncompleted ITAAC
- Special Topics

- Maintaining the Validity of ITAAC Conclusions Post-ITAAC Completion
  - Criteria/Process for Withdrawal or Update of 10 CFR 52.99 ITAAC Completion Notices
  - Design Acceptance Criteria
  - Subsequent COL ITAAC Closure
  - Non-ITAAC Systems
- Acronyms
  - Appendix A—Excerpts from 10 CFR Part 52
  - Appendix B—Reserved
  - Appendix C—General Description of Common ITAAC Acceptance Criteria Categories
  - Appendix D—List of ITAAC Closure Letter Examples
  - Appendix E—List of 225-Day Notification Examples

## **2. Guidelines on ITAAC Closure Development and Documentation in NEI 08-01**

The staff has completed extensive reviews and interaction with industry and the public on NEI 08-01, and it fully endorses NEI 08-01, Revision 3, as an acceptable method of complying with the requirements of 10 CFR 52.99. NEI 08-01 provides guidance for licensees on major aspects of the ITAAC closure process in the following sections:

Section 1 of NEI 08-01 provides an introduction to the document, a description and purpose of ITAAC, and the scope of topics that it will cover.

Section 2 of NEI 08-01 provides a list of definitions for terminology used in the guide. Some of these definitions will reappear in other documents such as operating license applications, design certification applications, and other supporting documents. Therefore, it is important that the full meaning of the definition be preserved.

NEI 08-01 defines “as-built” as:

“...the physical properties of a structure, system, or component following the completion of its installation or construction activities at its final location at the plant site. Determination of physical properties of the as-built structure, system, or component may be based on measurements, inspections, or tests that occur prior to installation, provided that subsequent fabrication, handling, installation, and testing do not alter the properties.”

Further, the second paragraph of NEI 08-01 Section 3.1.4 states:

“Many ITAAC require verification of “as-built” SSCs. However, some of these ITAAC will involve measurements and/or testing that can only be conducted at the vendor site due to the configuration of equipment or modules or the nature of the test (e.g., measurements of reactor vessel internals). For these specific items where access to the component for inspection or test is impractical after installation in the plant, the ITAAC closure documentation (e.g., test or inspection record) will be generated at the vendor site and provided to the licensee.”

The additional information included in Section 3.1.4 of NEI 08-01 places a restraint on the use of other than final in-place inspections used to satisfy the prescribed inspections, tests, and analyses for ITAAC closure. The intent of the additional language in Section 3.1.4 is to limit the use of those

inspections to instances when the final in-place inspection is impractical. An acceptable example could be the use of a record of inspection of an interior diameter measurement before final assembly of a valve completed at a vendor location. Every effort should be made by the licensee to complete the prescribed inspections, tests, and analyses in the SSCs at the final constructed location, or “as-built.”

Section 3 of NEI 08-01 provides a general description of the role of ITAAC process in Subpart A, “Early Site Permits”; Subpart B, “Standard Design Certifications”; and Subpart C, “Combined Licenses,” of 10 CFR Part 52. The ITAAC closure process described in NEI 08-01 is consistent with 10 CFR 52.99 requirements for verifying that the construction of a new nuclear plant matches the certified design and the additional criteria listed in the combined license. The discussion on “sufficient information” further describes the notification letters as required by 10 CFR 52.99(c)(1) and 10 CFR 52.99(c)(2). Section 3 also discusses public hearing opportunities during construction and provides a summary description of the process under 10 CFR 52.103, “Operation under a Combined License” and its associated fuel load authorization process.

Section 4 of NEI 08-01 provides information on schedule considerations for ITAAC-related activities and coordination to support NRC inspection planning. In accordance with 10 CFR 52.99, the licensee is required to submit an ITAAC closure schedule at 6-month intervals during plant construction. Within 1 year of fuel load, that interval will decrease to 30 days. The licensee’s ITAAC closure schedule will allow the NRC staff to plan its oversight activities of onsite and offsite construction inspections. The NRC will consider any licensee claims that the submitted schedule is proprietary and should be withheld from public release under the Freedom of Information Act and 10 CFR 2.390 (Ref. 15).

Section 5 of NEI 08-01 provides guidance on the licensee process for preparation and review of ITAAC closure letters. This section also provides guidance for licensee oversight of ITAAC closure activities and the maintenance of records referenced by the ITAAC closure packages. Section 5 also provides an outline of closure letters. This outline is further detailed in the templates contained in Appendix D to NEI 08-01. Section 5 includes a discussion of a licensee’s problem identification and resolution (PI&R) program addressing the identification and correction of deficiencies and the prevention of their recurrence as they relate to ITAAC completion.

Section 6 of NEI 08-01 provides guidance on the amount of information that must be contained in ITAAC closure letters. ITAAC closure letters must contain sufficient information to allow the NRC to determine whether the ITAAC have been successfully completed. According to the SOC for the 2007 Part 52 Rule, the closure letters mandated by 10 CFR 52.99(c)(1) must also include sufficient information so that interested persons will have access to information on completed ITAAC at a level of detail sufficient to address the Atomic Energy Act of 1954, Section 189.a(1)(B), threshold for requesting a hearing on whether the acceptance criteria have been, or will be, met. (Ref. 3).

Through multiple examples of ITAAC closure letters discussed during the public workshop series, the staff worked with industry and members of the public to identify the level of detail needed to satisfy requirements for sufficient information. The NRC expects that the notification of ITAAC completion to contain more information than just a simple statement that the licensee believes that it has completed the ITAAC and has met the acceptance criteria. The NRC expects the notification to be sufficiently complete and detailed for a reasonable person to understand the bases for the licensee’s representation that it has successfully completed the inspections, tests, and analyses and has met the acceptance criteria.. The term “sufficient information” requires, at a minimum, a summary description of the bases for the licensee’s conclusion that it has performed the inspections, tests, or analyses and that it has met the prescribed acceptance criteria (Ref. 3). .

Each 10 CFR 52.99(c)(1) submittal should include sufficient information on the attributes that validate that the licensee has satisfied the acceptance criteria. The licensee should copy the ITAAC directly from the certified design and COL to the ITAAC statement. The ITAAC determination basis should include a clearly written, detailed process for how the licensee completed the inspections, tests, or analyses and should explain how the acceptance criteria have been met. Each inspection, test, or analysis should be detailed to clearly indicate how and when it was completed and should state its results. The results should then be compared to the acceptance criteria and should include the bases for the licensee's conclusion that the acceptance criteria have been met. The submittal should also include ITAAC-related construction findings related to the ITAAC and their closure status, confirmation from the licensee's official representative that the licensee has met the acceptance criteria, and a list of references applicable to the ITAAC and available for NRC review. Appendix D to NEI 08-01 presents examples of ITAAC closure letters.

Section 7 of NEI 08-01 provides guidance on sufficient information for the 225-day notification of uncompleted ITAAC. The 225-day notification mandated by 10 CFR 52.99(c)(2) must include sufficient information so that interested persons will have access to information on uncompleted ITAAC at a level of detail sufficient to address the Atomic Energy Act of 1954, Section 189.a(1)(B), threshold for requesting a hearing on whether the acceptance criteria have been, or will be, met (Ref.3). In addition, this requirement will aid the staff in determining if the licensee will be able to satisfy the acceptance criteria for a given ITAAC. The uncomplete notification will be a predictive summary for how the licensee plans to complete the ITAAC if that ITAAC is not completed by 225 days before scheduled fuel load.

The licensee must demonstrate that it will comply with the ITAAC, and it must provide sufficient information to demonstrate that it will perform the prescribed inspections, tests, or analyses and will meet the prescribed acceptance criteria for the uncompleted ITAAC. The term "sufficient information" requires, at a minimum, a summary description of the bases for the licensee's conclusion that it will perform the inspections, tests, or analyses and that it will meet the prescribed acceptance criteria (Ref. 3). In addition, "sufficient information" includes, but is not limited to, a description of the specific procedures and analytical methods that the licensee will use to perform the inspections, tests, and analyses and to determine that it has met the acceptance criteria (Ref. 2).

Each 10 CFR 52.99(c)(2) notification should include sufficient information for both the completed and uncompleted elements of the ITAAC. The licensee should copy the ITAAC directly from the certified design and COL to the ITAAC statement. Items that the licensee has completed toward ITAAC closure should be accompanied by a clearly written, detailed process for how the licensee completed those portions of the inspections, tests, or analyses. Items that remain uncomplete for ITAAC closure should be accompanied by a clearly written, detailed process for how the licensee expects to complete those portions of the inspections, tests, or analyses and subsequently conclude that the acceptance criteria will be met. Each inspection, test, or analysis for both completed and uncompleted portions should be detailed to clearly indicate how and when it was, or will be, completed. The submittal should also include a schedule for completing the ITAAC and a list of references applicable to the ITAAC and available for NRC review. Appendix E to NEI 08-01 presents examples of uncomplete notifications.

Section 8 of NEI 08-01 provides a discussion on special topics, including acceptance criteria preservation for closed ITAAC, withdrawals or updates to 10 CFR 52.99 completion notices, design acceptance criteria procedures, subsequent COL ITAAC closure, and non-ITAAC systems. The NRC

staff position is that the licensee must satisfy all of the acceptance criteria for all ITAAC at the time that the 10 CFR 52.103(g) finding is made. Following the completion of any ITAAC, the licensee must maintain the validity of the acceptance criteria of the closed ITAAC to demonstrate that this requirement is met. One proposed method that the licensee can use to meet this requirement is to include provisions in approved programs such as the quality assurance program, the maintenance program, the problem identification and resolution program, and the design and configuration control program. These provisions should include licensee plans and programs to ensure that the maintenance of items such as structures, systems, or components that are included in ITAAC does not invalidate the conclusion that the acceptance criteria are met.

Withdrawals or updates to a 10 CFR 52.99(e)(1) *Federal Register* posting are possible if a material error or omission is found to affect the validity of a licensee's 10 CFR 52.99(c)(1) notification after it has made the notification.

Three scenarios exist for the closure of design acceptance criteria, namely, closure through the amendment of the design certification rule, closure through the COL application review process, and closure after COL issuance. The NRC staff prefers closure through the amendment of the design certification rule and closure through the COL application review process, as ways to satisfy and close out the acceptance criteria for those design characteristics because these two scenarios would be completed before construction begins. The staff does not prefer closure after COL issuance, because the closeout of the acceptance criteria could be delayed until the end of plant construction.

ITAAC closure might involve closure letters that are common to each licensee of a particular design. After the initial closure letter on a common issue is submitted, subsequent licensees could submit letters referencing identical information, but this would not apply to acceptance criteria that require field activities.

Non-ITAAC systems do not have design commitments that need to be verified. In some cases, a system identified as a non-ITAAC system refers to design commitments in another ITAAC.

Section 9 of NEI 08-01 provides a list of acronyms used in the guide.

Appendix A to NEI 08-01 provides excerpts from 10 CFR Part 52 that are applicable to the guideline's areas of discussion.

Appendix B to NEI 08-01 is reserved for future use.

Appendix C to NEI 08-01 provides a general description of common ITAAC categories and includes discussions of categories such as calculations and analyses, test procedures, special processes, inspection program, American Society of Mechanical Engineers code design reports, existing reports that conclude that acceptance criteria are met, procurement, material control, and training and qualification. These discussions are intended to assist the licensee in preparing closure letters or uncomplete notifications for each type of ITAAC category.

Appendix D to NEI 08-01 provides the set of ITAAC closure letters that were prepared during the workshops and public meetings in 2007 and 2008.

Appendix E to NEI 08-01 provides the set of 225-day notifications that were also prepared during the workshops and public meetings in 2007 and 2008. Licensees can use these templates to submit

10 CFR 52.99(c)(1) and 10 CFR 52.99(c)(2) letters. Each template contains a statement of the full ITAAC as it is included in the COL or certified reactor design, a section describing the bases for considering the ITAAC complete, a section for an ITAAC-related construction finding review, and a closure statement followed by a licensee representative signature for each submittal. Licensees must submit a 10 CFR 52.99(c)(2) notification for each uncompleted ITAAC by the 225-day milestone before scheduled fuel load. The 225-day notification requires additional detail on items completed toward ITAAC closure and on items that must be completed in the time before the 10 CFR 52.103(g) finding. The staff considers these letters to be examples and anticipates that additional information may be necessary for individual ITAAC letters. Licensees should review the criteria of Sections 6 and 7 of NEI 08-01 to determine the appropriate content.

### **3. Appendices to This Regulatory Guide**

Appendix A to this draft regulatory guide contains the text of 10 CFR 52.99.

Appendix B (Ref. 16) to this draft regulatory guide contains the flowchart and description for the implementation of 10 CFR 52.99 and 10 CFR 52.103(g), which the staff developed for use in public workshops. The process flowchart blocks include numbered descriptions to further delineate each major milestone in the regulatory process of ITAAC closure and verification up to and including the 10 CFR 52.103(g) finding.

## **C. REGULATORY POSITION**

### **1. NEI 08-01**

The NRC staff considers the methods discussed in NEI 08-01, Revision 3, to be acceptable for complying with the provisions of 10 CFR 52.99. If NEI 08-01 is revised, then the NRC staff will evaluate the impact of the revision on the regulatory positions and will provide further guidance, as applicable.

### **2. Other Documents Referenced in NEI 08-01**

NEI 08-01 references other documents, but this draft regulatory guide does not endorse any of the referenced documents.

### **3. Use of Examples in NEI 08-01**

NEI 08-01 includes examples for ITAAC closure letter submittals and uncomplete notifications for ITAAC. Although these examples are appropriate as general templates for illustrating and reinforcing the guidance in NEI 08-01, the NRC's endorsement of this industry guideline document should not be considered a determination that each example applies to all licensees as it is presented and written in the guide. A licensee should ensure that an example applies to its particular circumstances before implementing the guidance, or template, as described.

#### **4. Guidance for Site-Specific ITAAC**

For licensees who have site-specific ITAAC in their COL, the guidance in NEI 08-01 applies to ITAAC closure notification development. If necessary, the staff may provide further guidance or examples for use with respect to such site-specific attributes and characteristics at a later date.

#### **5. Use of Other Methods**

Licensees may use methods other than those provided in NEI 08-01 to meet the requirements of 10 CFR 52.99. The staff will review such methods and determine the acceptability of other methods on a case-by-case basis.

### **D. IMPLEMENTATION**

The purpose of this section is to provide information to applicants and licensees regarding the NRC's plans for using this draft regulatory guide. The NRC does not intend or approve any imposition or backfit in connection with its issuance.

The NRC has issued this draft guide to encourage public participation in its development. The NRC will consider all public comments received in development of the final guidance document. In some cases, applicants or licensees may propose an alternative or use a previously established acceptable alternative method for complying with specified portions of the NRC's regulations. Otherwise, the methods described in this guide will be used in evaluating compliance with the applicable regulations for ITAAC closure.

### **REGULATORY ANALYSIS**

#### **Statement of the Problem**

The purpose of this new regulatory guidance is to standardize the content and format, to the extent possible, of licensee submittals to satisfy the ITAAC notification requirements of 10 CFR 52.99. In addition, guidance on the 10 CFR 52.99 process that precedes the 10 CFR 52.103(g) finding pertaining to acceptance criteria, should provide clarification and consistency for external stakeholders regarding the submittal, review, closure, and hearing opportunities for ITAAC. Without further explanation of the NRC's expectations for meeting the requirements in 10 CFR 52.99, licensee submittals could vary greatly in the amount of information submitted to the NRC for review. These ITAAC closure submittals and uncomplete notifications for ITAAC will also be available for review by members of the public. Ultimately, these closure submittals need to provide enough detail to clearly show that the licensee has met the acceptance criteria or that the licensee is capable of satisfying the acceptance criteria of uncompleted ITAAC.

Therefore, issuance of this regulatory guidance is necessary to provide licensees with information that they will need to develop quality ITAAC closure submittals on a timely basis, to develop associated details at levels meeting the NRC's ITAAC closure review expectations, to develop submittals of required and supporting documentation, and to develop associated licensee ITAAC closure schedules.

## **Objective**

The objective of this regulatory action is to provide guidance on technical matters related to ITAAC closure submittals pertaining to nuclear power plant construction in accordance with the acceptance criteria listed in a COL.

## **Alternative Approaches**

The NRC staff considered the following alternative approaches:

- (1) Do not issue a new regulatory guide.
- (2) Issue a new regulatory guide.

### **Alternative 1: Do Not Issue a New Regulatory Guide**

Under this alternative, the NRC would not issue additional guidance. If the NRC does not take action, there would be no change in costs or benefit to the public, licensees, or the NRC. However, the “no-action” alternative would not address identified concerns in the absence of NRC guidance. This alternative provides a baseline condition from which any other alternatives will be assessed.

### **Alternative 2: Issue a New Regulatory Guide**

Under this alternative, the NRC would issue a new regulatory guide, taking into consideration the full endorsement of NEI 08-01.

One benefit of this action is that it would enhance the quality of licensee ITAAC submittals and help to ensure consistency. Furthermore, this guide also describes the NRC’s construction inspection program and may aid licensees in meeting NRC expectations.

The impact to the NRC would be the costs associated with preparing and issuing the regulatory guide. The impact to the public would be the voluntary costs associated with reviewing and providing comments to the NRC during the public comment period. The value to NRC staff and current and prospective COL applicants would be the benefits associated with enhanced efficiency and effectiveness in using a common guidance document as the technical basis for licensee ITAAC submittals, closure schedules, and other interactions between the NRC and its regulated entities.

## **Conclusion**

Based on this regulatory analysis, the NRC staff recommends issuance of a new regulatory guide. The staff concludes that the proposed action will enhance the licensee’s understanding of the NRC’s expectations for adequate ITAAC closure packages before and during new nuclear power plant construction. It could also lead to cost savings for the industry, especially with regard to reducing paperwork, preparing licensee submittals, and reducing the potential need for licensees to make multiple submittals to achieve acceptance criteria closeout.

## REFERENCES

1. NEI 08-01, "Industry Guideline for the ITAAC Closure Process under 10 CFR Part 52, Revision 3," Nuclear Energy Institute, Washington, DC.
2. 10 CFR Part 52.99, "Inspection during construction," U.S. Nuclear Regulatory Commission, Washington, DC.
3. Final Rule for 10 CFR Part 52 "Licenses, Certifications, and Approvals for Nuclear Power Plants," August 28, 2007, 72 FR 49352, U.S. Nuclear Regulatory Commission, Washington, DC.
4. Herrity, Memorandum to Rasmussen, Subject: "Summary of August 30, 2007 and August 31, 2007, Category 3 Public Meeting on Construction Assessment, Enforcement, and ITAAC Closure Programs for New Reactor Construction," U.S. Nuclear Regulatory Commission, Washington, DC.
5. Kleeh, Memorandum to Rasmussen, Subject: "October 18, 2007, Summary of Public Meeting on ITAAC Closure and Assessment and Enforcement of Construction Findings," U.S. Nuclear Regulatory Commission, Washington DC.
6. Kleeh, Memorandum to Rasmussen, Subject: "Summary of Public Meeting Held on November 28, 2007, on ITAAC Closure and Assessment and Enforcement of Construction Findings," U.S. Nuclear Regulatory Commission, Washington, DC.
7. Kleeh, Memorandum to Rasmussen, Subject: "December 18, 2007, Summary of Public Meeting on ITAAC Closure Workshop, Assessment, and Enforcement for New Reactors," U.S. Nuclear Regulatory Commission, Washington, DC.
8. Webb, Memorandum to Rasmussen, Subject: "Summary of Public Meeting Held on January 31, 2008, To Discuss ITAAC Closure and Assessment and Enforcement for New Reactors," U.S. Nuclear Regulatory Commission, Washington, DC.
9. Spivack, Memorandum to Rasmussen, Subject: "Summary of Public Meeting Held on March 6, 2008 To Discuss ITAAC Closure and Assessment and Enforcement for New Reactors," U.S. Nuclear Regulatory Commission, Washington, DC.

10. Spivack, Memorandum to Rasmussen, Subject: "Summary of Public Meeting Held on April 2 and 3, 2008, To Discuss ITAAC Closure and Assessment and Enforcement for New Reactors," U.S. Nuclear Regulatory Commission, Washington, DC.
11. Spivack, Memorandum to Rasmussen, Subject: "Summary of Public Meeting Held on May 6 and 13, 2008, To Discuss ITAAC Closure and Assessment and Enforcement for New Reactors," U.S. Nuclear Regulatory Commission, Washington, DC.
12. Spivack, Memorandum to Rasmussen, Subject: "Summary of Public Meeting Held on June 17, 2008, To Discuss NRC Review of NEI 08-02 and NEI 08-01," U.S. Nuclear Regulatory Commission, Washington, DC.
13. Murray, Memorandum to Rasmussen, Subject: "Summary of Public Meeting Held on July 10, 2008, To Discuss ITAAC Closure and Assessment and Enforcement for New Reactors," U.S. Nuclear Regulatory Commission, Washington, DC.
14. Spivack, Memorandum to Starefos, Subject: "Summary of Public Meeting Held on December 17, 2008, To Discuss ITAAC Maintenance and Assessment and Enforcement for New Reactors," U.S. Nuclear Regulatory Commission, Washington, DC.
15. 10 CFR Part 2.390, "Public inspections, exemptions, requests for withholding," U.S. Nuclear Regulatory Commission, Washington, DC.
16. SECY-08-0117, "Staff Approach to Verify Closure of Inspections, Tests, Analyses, and Acceptance Criteria and to Implement Title 10 CFR 52.99, 'Inspection During Construction,' and Related Portion of 10 CFR 52.103(g) on the Commission Finding," Enclosure 3, "Flowchart and Description of Implementation under 10 CFR 52.99 and 10 CFR 52.103(g)," U.S. Nuclear Regulatory Commission, Washington, DC.

## APPENDIX A

### TEXT OF 10 CFR 52.99

#### **§ 52.99 Inspection during construction.**

(a) The licensee shall submit to the NRC, no later than 1 year after issuance of the combined license or at the start of construction as defined in 10 CFR 50.10(a), whichever is later, its schedule for completing the inspections, tests, or analyses in the ITAAC. The licensee shall submit updates to the ITAAC schedules every 6 months thereafter and, within 1 year of its scheduled date for initial loading of fuel, the licensee shall submit updates to the ITAAC schedule every 30 days until the final notification is provided to the NRC under paragraph (c)(1) of this section.

(b) With respect to activities subject to an ITAAC, an applicant for a combined license may proceed at its own risk with design and procurement activities, and a licensee may proceed at its own risk with design, procurement, construction, and pre-operational activities, even though the NRC may not have found that any one of the prescribed acceptance criteria have been met.

(c)(1) The licensee shall notify the NRC that the prescribed inspections, tests, and analyses have been performed and that the prescribed acceptance criteria have been met. The notification must contain sufficient information to demonstrate that the prescribed inspections, tests, and analyses have been performed and that the prescribed acceptance criteria have been met.

(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.

(d)(1) In the event that an activity is subject to an ITAAC derived from a referenced standard design certification and the licensee has not demonstrated that the ITAAC has been met, the licensee may take corrective actions to successfully complete that ITAAC or request an exemption from the standard design certification ITAAC, as applicable. A request for an exemption must also be accompanied by a request for a license amendment under § 52.98(f).

(2) In the event that an activity is subject to an ITAAC not derived from a referenced standard design certification and the licensee has not demonstrated that the ITAAC has been met, the licensee may take corrective actions to successfully complete that ITAAC or request a license amendment under § 52.98(f).

(e) The NRC shall ensure that the prescribed inspections, tests, and analyses in the ITAAC are performed.

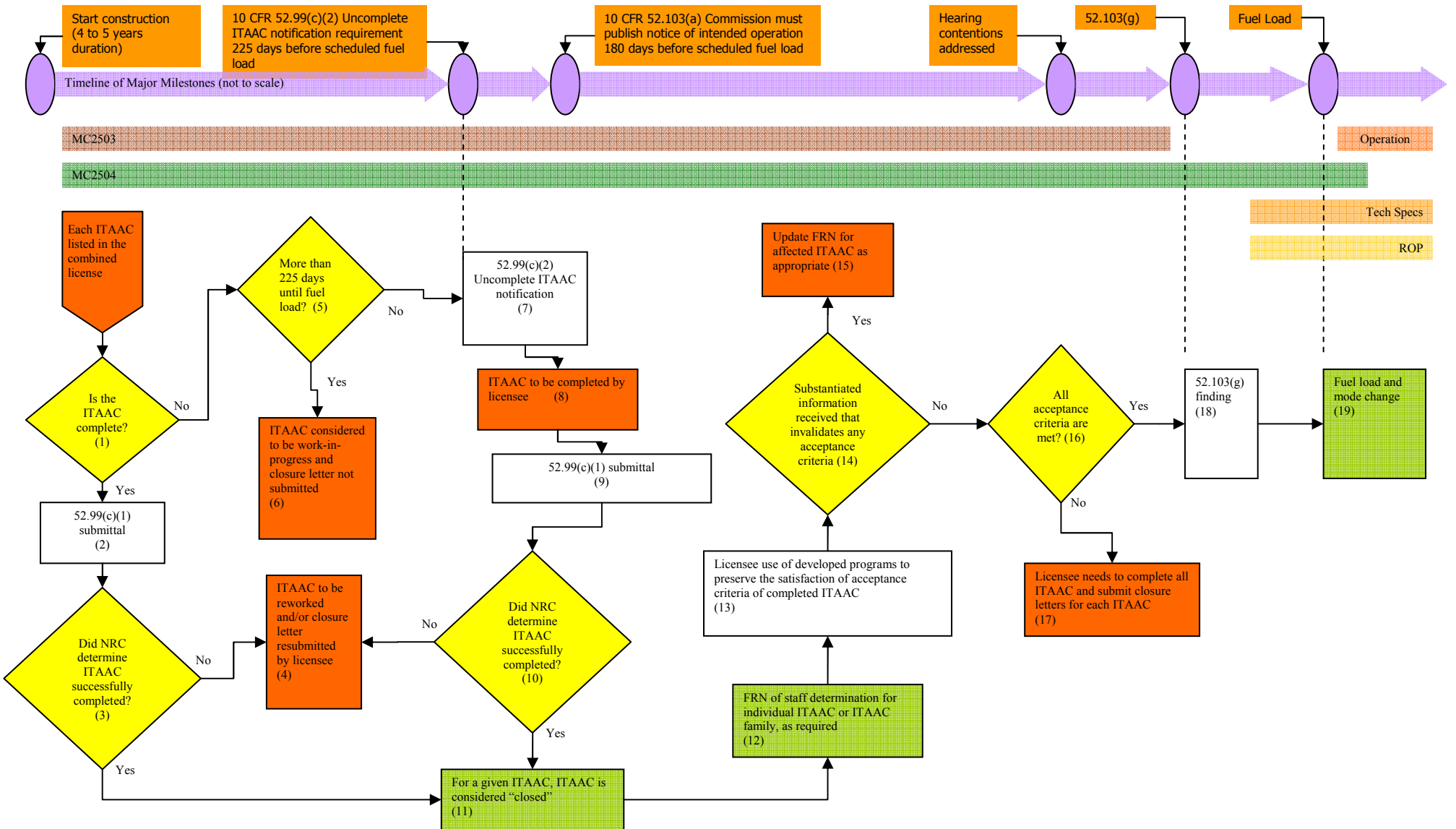
(1) At appropriate intervals until the last date for submission of requests for hearing under § 52.103(a), the NRC shall publish notices in the *Federal Register* of the NRC staff's determination of the successful completion of inspections, tests, and analyses.

(2) The NRC shall make publicly available the licensee notifications under paragraph (c)(1), and, no later than the date of publication of the notice of intended operation required by § 52.103(a), make available all licensee notifications under paragraphs (c)(1) and (c)(2) of this section.

[57 FR 60978, Dec. 23, 1992; 72 FR 49536, Aug. 28, 2007; 72 FR 57447, Oct. 9, 2007]

# APPENDIX B

## Flowchart and Description of Implementation Under 10 CFR 52.99 and 10 CFR 52.103(g)



## Process block descriptions:

- (1) This is the first decision block for any given inspection, test, analysis, and acceptance criterion (ITAAC), and the licensee needs to assess each ITAAC from the license. Each ITAAC can enter this block at any time during construction regardless of its completed or uncompleted status for processing through this flowchart.
- (2) If (1) is “yes,” then the licensee must submit a closure letter pursuant to 10 CFR 52.99(c)(1).
- (3) The U.S. Nuclear Regulatory Commission (NRC) will perform ITAAC closure verification activities, including direct inspection, engineering reviews, and consideration of licensee performance within an ITAAC family. Licensee performance within an ITAAC family is taken into consideration for determination of subsequent licensee ITAAC submittals. “Yes” indicates that the staff has determined that the ITAAC was successfully completed and is “closed.” “No” indicates that the ITAAC is not “closed” and remains uncomplete.
- (4) If (3) is “no,” the NRC has determined that either the 10 CFR 52.99(c)(1) closure letter information is insufficient or that the licensee has not met the acceptance criteria for the given ITAAC. The licensee will either need to resubmit a closure letter that contains sufficient information demonstrating that it has completed the ITAAC, or the licensee will need to rework the ITAAC and redo the inspections, tests, and analyses. In either case, the licensee will need to resubmit the 10 CFR 52.99(c)(1) closure letter.
- (5) If (1) is “no,” the licensee needs to identify if the time to scheduled fuel load is greater than 225 days. At the 225-day milestone, the licensee is required to submit 10 CFR 52.99(c)(2) uncomplete ITAAC notifications for those ITAAC not yet completed and the 10 CFR 52.99(c)(1) closure letter not yet submitted.
- (6) If (5) is “yes,” there is no 10 CFR 52.99(c)(2) uncomplete notification required for this ITAAC, and the ITAAC under consideration is in the “work-in-progress” population.
- (7) If (5) is “no,” the licensee needs to submit to the NRC a 10 CFR 52.99(c)(2) uncomplete ITAAC notification. This notification needs to contain sufficient information to demonstrate that the licensee will perform the ITAAC.
- (8) Entry here indicates that an individual ITAAC remains in the uncomplete population. Once the licensee concludes that it has met the acceptance criteria, process block (9) is entered.
- (9) Upon successfully meeting the acceptance criteria for a given ITAAC, the licensee can submit the 10 CFR 52.99(c)(1) closure letter to the NRC.
- (10) The NRC will perform ITAAC closure verification activities. This decision block is identical to block (3).
- (11) If (10) is “yes,” the NRC staff has determined that the licensee has met the acceptance criteria.
- (12) The NRC determination that the licensee has successfully completed an ITAAC is published in the *Federal Register* until the last date for submission of requests for hearings under 10 CFR 52.103(a). The NRC can publish a *Federal Register* notice (FRN) for individual ITAAC (if needed) or multiple ITAAC (such as an entire family). The NRC is not required to publish an FRN after the last date for submission of requests for hearings under 10 CFR 52.103(a).
- (13) The licensee will apply developed programs such as quality assurance and maintenance to preserve the satisfaction of acceptance criteria for completed ITAAC of applicable structures, systems, and components.
- (14) Any substantiated information received by the NRC, including allegations, can invalidate an ITAAC.
- (15) If (14) is “yes,” then, depending on the severity of the substantiated allegation or information received, the FRN for each affected ITAAC could be updated accordingly. Also depending on the severity of the situation, the licensee may or may not have options available to act accordingly to preserve the FRN for the affected ITAAC.
- (16) This process block collectively considers if the licensee has met all ITAAC acceptance criteria.
- (17) If (16) is “no,” then the licensee needs to complete all ITAAC and ensure that it meets, and continues to meet, all the acceptance criteria for the 10 CFR 52.103(g) finding.
- (18) At the time of the 10 CFR 52.103(g) finding, all acceptance criteria must be met, such as when (16) is “yes.” Also, this timeline and flowchart do not contemplate an interim operation scenario whereby the Commission could authorize a period of interim operation that would allow the licensee to load fuel before making the 10 CFR 52.103(g) finding, per 10 CFR 52.103(c).
- (19) With an affirmative Commission 10 CFR 52.103(g) finding, the licensee will be authorized to load fuel and enter operational status.