



# U.S.NRC

United States Nuclear Regulatory Commission

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*Protecting People and the Environment*

## Inspections, Tests, Analyses and Acceptance Criteria Tabletop

December 12, 2017

Atlanta, GA



United States Nuclear Regulatory Commission

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*Protecting People and the Environment*

# Public Meeting Overview

# Purpose

- Provide status of the ITAAC demonstration project actions
- To gain better understanding of the NRC's ITAAC review and inspection processes focusing on complex ITAAC to maximize the effectiveness and efficiency in processing ITAAC closure notifications
- To start engagement on the steps associated with the staff's 10 CFR 52.103(g) Finding

# Agenda

- Status of ITAAC Demonstration Actions
- Tabletop Exercise for Complex ITAAC
  - ITAAC Closure Notification Process and Content
  - ITAAC Inspection Planning and Scheduling Process
  - ITAAC 13 and 19 Demonstrations
  - Potential ITAAC Inspection Issues
  - ITAAC Metrics and Dashboards
- 10 CFR 52.103(g) Finding
- Summary and Closing Remarks
- Open discussion with licensee after each topic
- Public Comments

# Abbreviations

- ITAAC Inspections, Tests, Analyses, and Acceptance Criteria
- ICN ITAAC Closure Notification
- UIN Uncompleted ITAAC Notification
- IPCN ITAAC Post-Closure Notification
- VEF Verification Evaluation Form
- IMC Inspection Manual Chapter
- IP Inspection Procedure
- COL Combined License
- VOICES Verification of ITAAC Closure, Evaluation, and Status
- CIPIMS Construction Inspection Program Information Management System
- PCD Principal Closure Document



United States Nuclear Regulatory Commission

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# Status of ITAAC Demonstration Action Items

# Recommendations from ITAAC Demonstration Project

ADAMS Accession No. ML17263A152, “Inspections, Tests, Analyses, And Acceptance Criteria Demonstration Project Action Plan”

## 1. Weekly Public Meetings - **COMPLETE**

- Continued utilization of weekly public meeting for resolution of critical issues associated with ICN and UIN reviews
- Establish standing agenda items during weekly public meeting to discuss expected submittal

# Recommendations from ITAAC Demonstration Project

## 2. Clarity in Existing Industry Guidance – COMPLETE

- Develop an FAQ-type process to resolve issues associated with implementation of industry guidance
  - Recommendation is addressed via the weekly public meetings

## 3. Complex ITAAC – 4Q CY2017

- Identify complex ITAAC issues through review of UINs and discussions with the licensee to develop clear expectations for the content of ICN submittals
  - This tabletop is focused on discussing examples of complex ITAAC



# Recommendations from ITAAC Demonstration Project

4. NRC Processes Guidance Enhancement – 1Q CY2018
  - Revise applicable NRO office instructions to ensure lessons learned and enhancements for the ICN review process, and make NRO-REG-103 publically available for stakeholder insight
  - Revisions include:
    - Development of criteria for technical reviewer assignment
    - Evaluation of requirement of completing half of targeted ITAAC before completing verification of non-targeted ITAAC within an ITAAC family
    - Provides detailed steps for review of ICNs, UINs, and IPCNs

# Recommendations from ITAAC Demonstration Project

## 5. Enhance NRC Processes for ITAAC inspection and documentation – 2Q CY2018

- Enhanced guidance being developed for the following processes:
  - Technical assistance requests (TARs)
  - Unresolved Items (URIs)
  - ITAAC inspection findings and enforcement actions
  - Allegations and Petitions
  - ITAAC post closure notifications

# Recommendations from ITAAC Demonstration Project

## 6. Performance Dashboards – 4Q CY2017

- Create an integrated highly visible, color-coded performance dashboard to track the status of ICN reviews and inspection process for early identification of ITAAC closure related issues for management attention and resolution
- Dashboard development tracks the status and timeliness of ICN reviews and ITAAC inspections based on program metrics
- Currently being utilized and receiving regular updates as needed

# Recommendations from ITAAC Demonstration Project

## 7. Inspection Scheduling Efficiency

- **1Q CY2018** - Incorporate scheduling process lessons learned into Desktop Guide(s) including decision making on how to schedule different types of inspections
- **2Q CY2018** - Produce a schedule of pre-op test procedure reviews and tests to verify inspections are scheduled ahead of tests

# Recommendations from ITAAC Demonstration Project

8. Timeliness of Inspection Reports - Establish timeliness requirements for inspection disposition including inspection completion in CIPIMS and inspection report issuance
  - **1Q CY2018** – Review existing process(es) for inspection report timeliness requirements
  - **2Q CY2018** - Create or revise working level guidance (i.e. Desktop Guides) to capture efficiencies for inspection report timeliness

# Recommendations from ITAAC Demonstration Project

## 9. Maintain Qualified Staff

- **1Q CY2018** - Update and publicly release NRC-REG-103 to capture the cross-training procedure, including dispositioning inspection findings for potential efficiencies
- **COMPLETE** - Construction inspector training has been incorporated into IMC-1245, Appendix C-15

# Recommendations from ITAAC Demonstration Project

## 10. Organizational Structures

- **1Q CY2018** - Establish a temporary organizational structure with senior executive leadership a year before projected fuel load to oversee and coordinate the ITAAC closure process to ensure decision making and prompt identification and resolution of issues

## 11. External Stakeholders

- **COMPLETE** - Create a [message map](#) on key aspects and updates of the ITAAC process for external stakeholders

# Recommendations from ITAAC Demonstration Project

## 12. External Stakeholders – 1Q CY2018

- Conduct public workshops to refine and enhance ITAAC closure process
  - NRC-REG-103 will capture the use of workshops when needed





## Tabletop Exercise for Complex ITAAC

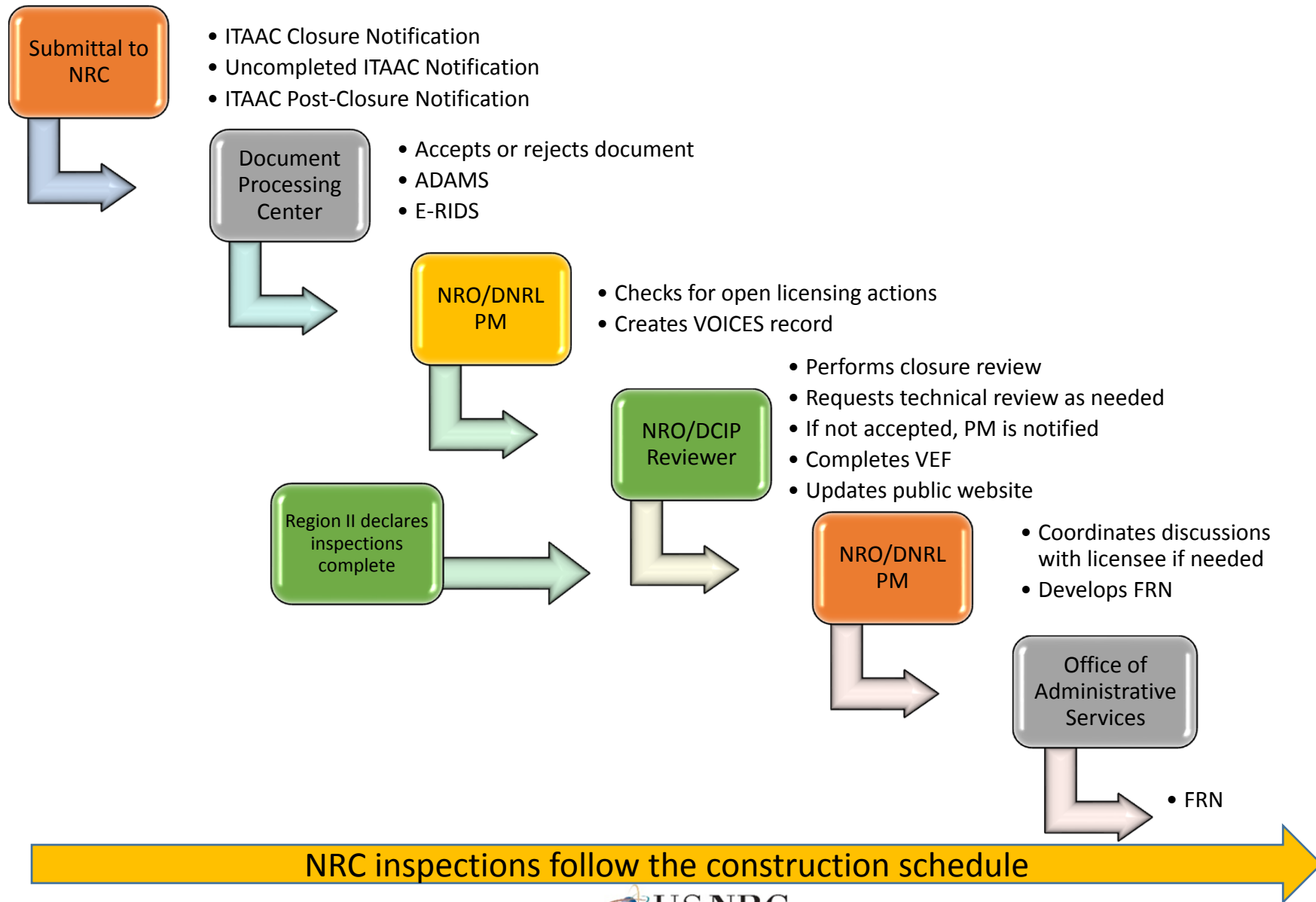


# ITAAC Closure Notification Process and Content

# ITAAC Closure Verification Process

- **Regulatory Requirements:**
  - 52.99(c)(1) – ITAAC Closure Notification [ICN]
  - 52.99(c)(2) – ITAAC Post-Closure Notification [IPCN]
  - 52.99(c)(3) – Uncompleted ITAAC Notification [UIN]
- **Guidance Documents / Procedures:**
  - NRO-REG-103; Inspections, Tests, Analyses and Acceptance Criteria Closure Verification Process
  - Regulatory Guide 1.215; Guidance for ITAAC Closure Under 10 CFR Part 52
  - NEI 08-01; Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52
- **IT Infrastructure:**
  - VOICES
  - CIPIMS

# Process Overview



# ITAAC Verification and Evaluation Form (VEF)

- Documents the staff's review and conclusions to support the staff's basis for the 10 CFR 52.103(g) finding
- Attributes that the reviewer verifies:
  1. The ICN identifies correct licensee, site, unit, and docket number
  2. The ITAAC in the ICN matches the ITAAC in the license
  3. The ITAAC determination basis contains sufficient information
  4. The ITAAC determination basis demonstrates the licensee has fully met the ITAAC's acceptance criteria
  5. Proper justification is provided for as-built ITAAC not performed in the as-built final location
  6. For Reference ITAAC, all the parent ITAAC have been completed and the associated ICN(s) accepted
  7. All planned inspections for this ITAAC are complete and either no findings were identified or all findings are closed and are listed in the ICN
  8. The licensee has affirmed by signature the ITA has been completed and the AC met

# Sufficient Information

In accordance with the final rule for Part 52 (72 FR 49352, 49366; August 28, 2007):

- 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 the ITA have been successfully completed and the AC have been met.
- The term "sufficient information" requires, at a minimum, a summary description of the basis for the licensee's conclusion that the ITA have been performed, and that the prescribed AC have been met.
- "Sufficiency of information" means, at a minimum, a "summary description" of the licensee's "bases" for completing an entire ITAAC, and is not just a simple statement that the ITA activities were performed, and/or that the AC of an ITAAC are met.

# Tell the Story

- Minimize use of internal non-publically available information
- When you must reference non-publically available information provide a summary description for the process, procedure or analytical methods (key steps) used to carry out the ITA
  - If more than one method is available to meet the AC, the description must clearly state which method was selected
- Demonstrate that the AC have been met, if applicable state the results of numerical values in the results discussion
  - volume, flow rates, temperatures, or pressures, etc.

# ICN Efficiencies

- Multiple ICNs in one submittal
- Multiple units submittal for one ITAAC
- Partial ITAAC closure notifications
- Early UIN submittals





## ITAAC Inspection Planning and Scheduling Process

# Construction Inspection Program (CIP)

- Per IMC 2506, inspections conducted in accordance with IMCs:
  - 2501 (ESP)
  - 2502 (LWA)
  - 2503 (ITAAC)
  - 2504 (Programs)
  - 2507 (Vendor)
- Verification of ITAAC provides assurance that the facility has been constructed and will operate in accordance with the COL

# ITAAC Inspections

ITAAC Baseline Inspection – Two Key Inspection Elements:

- Broad range of ITAAC-related activities
- ITAAC-related construction processes (design, welding, testing)

ITAAC inspections are complete when:

- NRC has inspected a sufficient number of SSCs related to the ITAAC
- No open ITAAC findings/non-conformances exist

# Inspection Planning (IMC 2506)

NRC creates inspection plans for each ITAAC

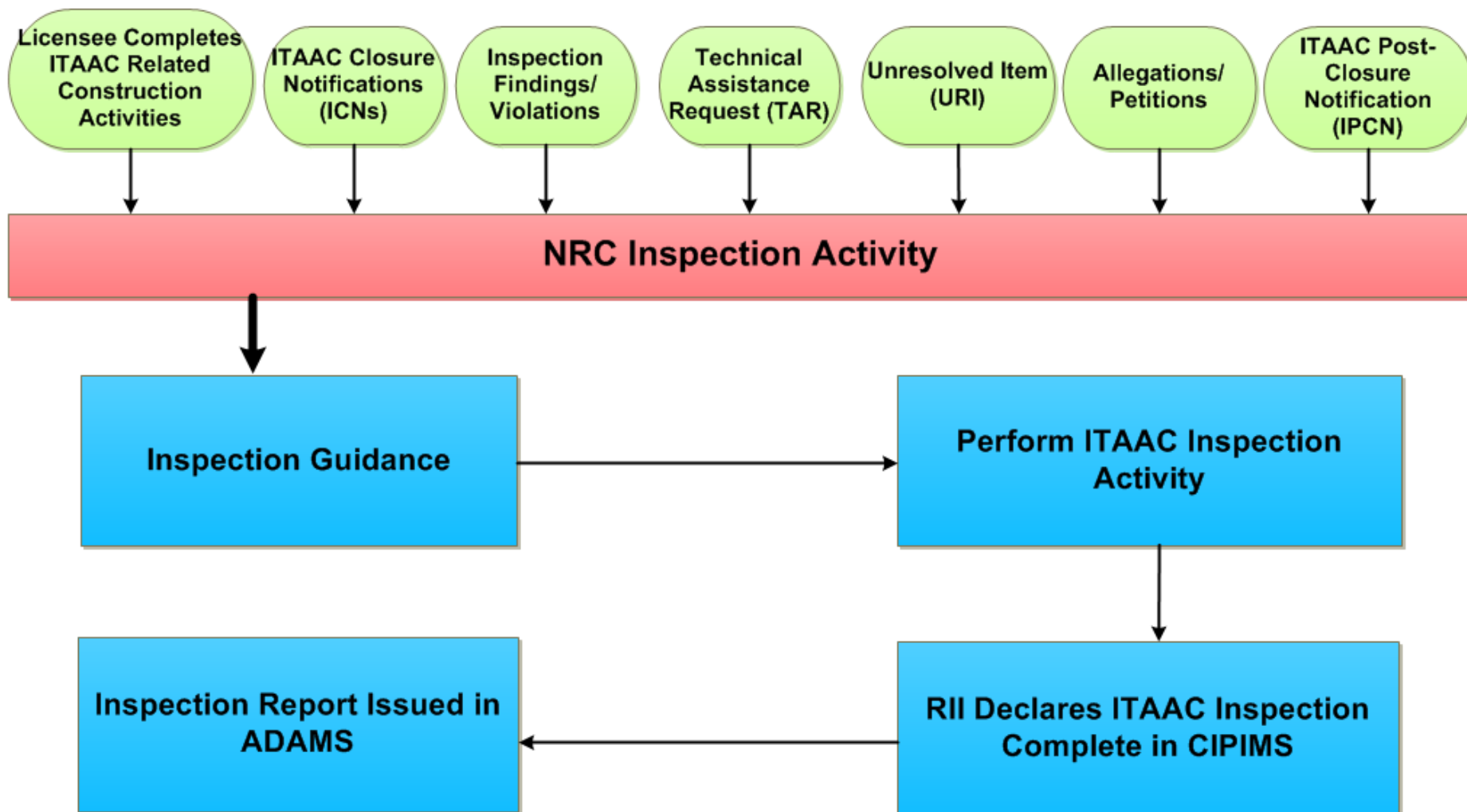
- Provides assurance that the ITAAC is met by the licensee
- Inspection plans are placed into Primavera to create an inspection schedule
- Inspections will occur throughout construction for NRC to complete the ITAAC baseline

# Inspection Planning (IMC 2506)

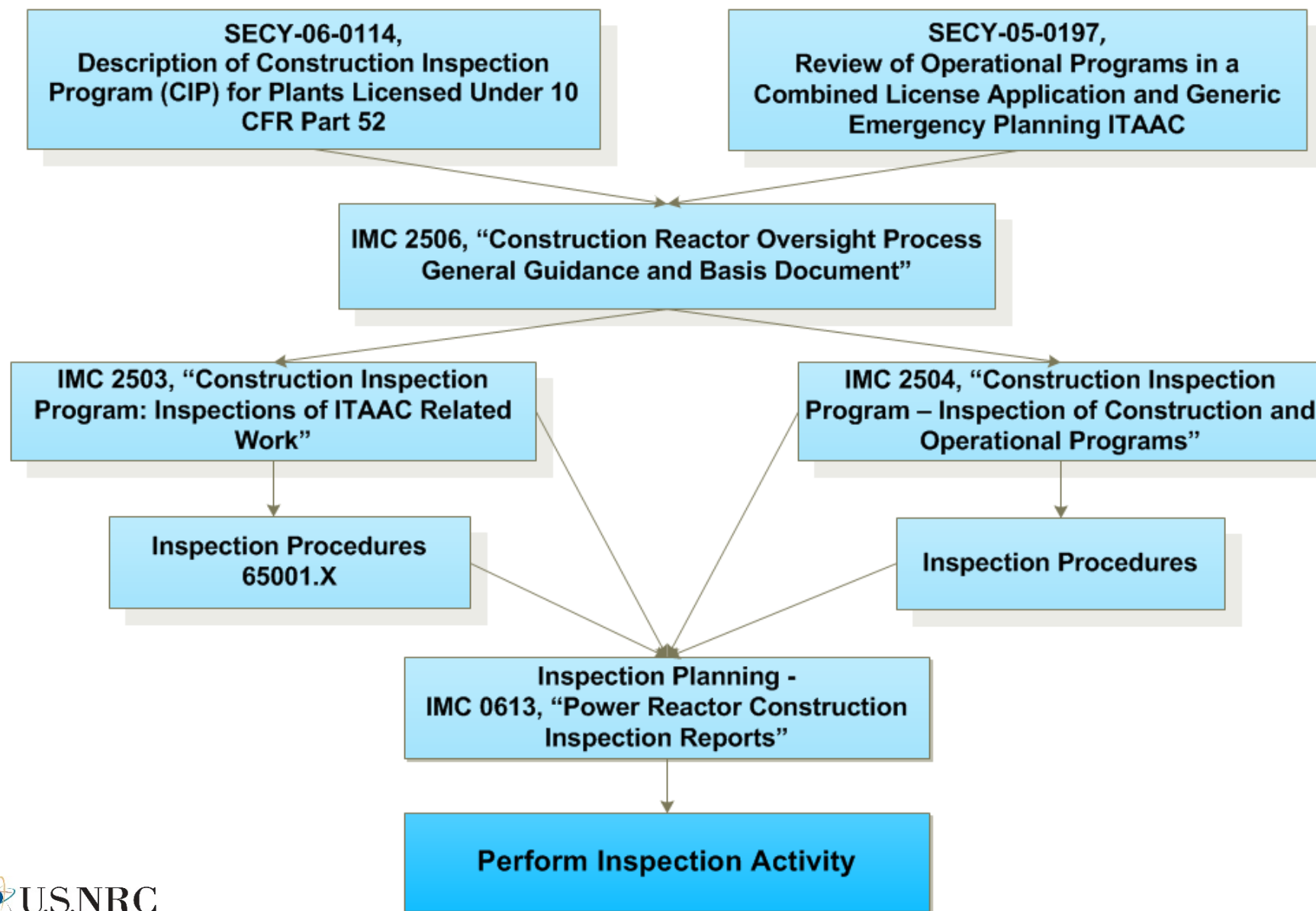
- The inspection plans referenced in IMC 2506 describe the basic activity, time-frame and scope of inspection
- Plans typically mirror licensee activities used to close the ITAAC
  - In some cases, NRC will perform different verification methods not used by the licensee to inspect the ITAAC

# ITAAC Inspection Process

## Inspection Initiators



# NRC Construction Inspection Guidance



# Inspection Planning

Inspectors consider the following when planning for inspections:

- Inspection Plans (IMC 2506)
- Licensing Basis
- Operating/Construction Experience
- Completed Inspections and Findings
- Resident Inspector Insight
- Licensee's Construction Schedule



# ITAAC Matrix

|                                  | A)As-Built<br>Insp | B)<br>Welding | C)Const<br>Testing | D) Opn<br>Testing | E)Qual<br>Criteria | F)Design/<br>Fab Req |
|----------------------------------|--------------------|---------------|--------------------|-------------------|--------------------|----------------------|
| 01)Foundations & Buildings       | A01                | B01           | C01                | D01               | E01                | F01                  |
| 02)Struc Conc                    | A02                | B02           | C02                | D02               | E03                | F02                  |
| 03)Piping                        | A03                | B03           | C03                | D03               | E03                | F03                  |
| 04)Pipe Spt & Restraints         | A04                | B04           | C04                | D04               | E04                | F04                  |
| 05)RPV & Int'ls                  | A05                | B05           | C05                | D05               | E05                | F05                  |
| 06)Mech Comp                     | A06                | B06           | C06                | D06               | E06                | F06                  |
| 07)Valves                        | A07                | B07           | C07                | D07               | E07                | F07                  |
| 08)Elec Comp & Systems           | A08                | B08           | C08                | D08               | E08                | F08                  |
| 09)Elec Cable                    | A09                | B09           | C09                | D09               | E09                | F09                  |
| 10)I&C Comp & Systems            | A10                | B10           | C10                | D10               | E10                | F10                  |
| 11)Containment Integrity & Pen's | A11                | B11           | C11                | D11               | E11                | F11                  |
| 12)HVAC                          | A12                | B12           | C12                | D12               | E12                | F12                  |
| 13)Eqp Handle & Fuel Racks       | A13                | B13           | C13                | D13               | E13                | F13                  |
| 14)Complex Sys w/ Multi-Comp     | A14                | B14           | C14                | D14               | E14                | F14                  |
| 15)Fire Prot                     | A15                | B15           | C15                | D15               | E15                | F15                  |
| 16)Engineering                   | A16                | B16           | C16                | D16               | E16                | F16                  |
| 17)Security                      | A17                | B17           | C17                | D17               | E17                | F17                  |
| 18)EP                            | A18                | B18           | C18                | D18               | E18                | F18                  |
| 19) Rad Prot                     | A19                | B19           | C19                | D19               | E19                | F19                  |

# Scheduling ITAAC Inspections

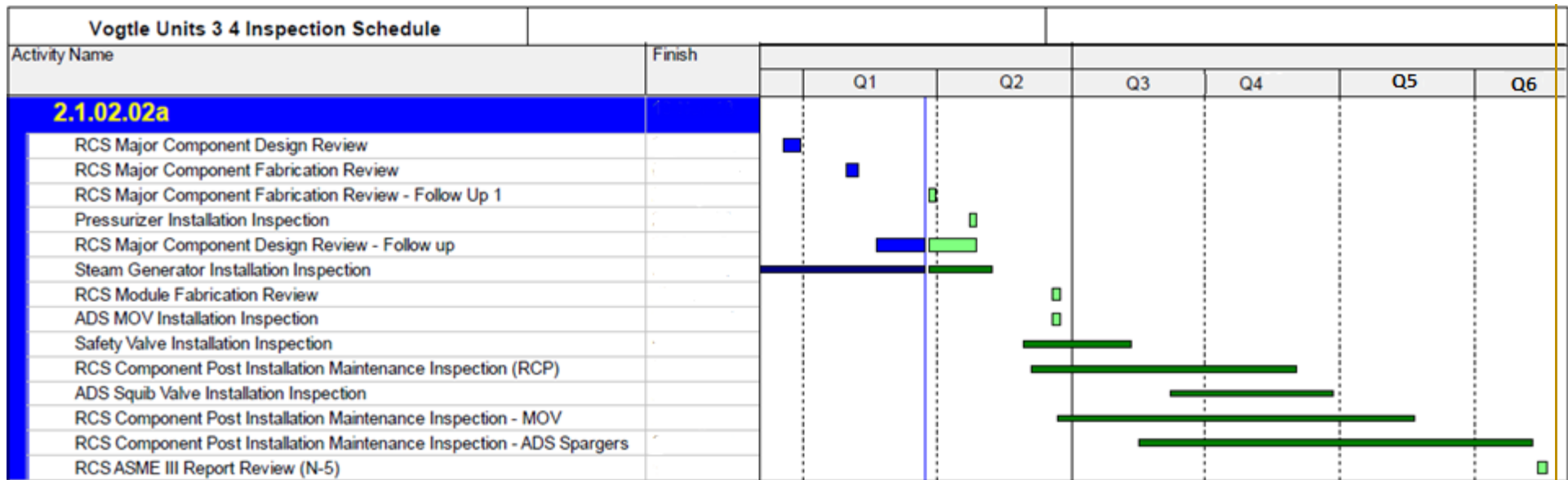
- Inspections are scheduled throughout the life of construction
- Inspections are planned around an aspect of construction (engineering, procurement, installation, etc.)
- The component does not need to have all phases of construction complete to begin inspection

# ITAAC Inspections and Vendor Inspections

- Example 1 (IMC 2503):
  - Design activities were performed by Westinghouse
  - Licensee accepted design
  - Region II performs design inspection at Westinghouse
- Example 2 (IMC 2503):
  - Components were fabricated at a vendor
  - Components arrived onsite and were accepted
  - RII performs fabrication inspection onsite
- Example 3 (IMC 2507):
  - Instrument and controls component testing at a vendor
  - Vendor branch conducts inspection with RII support

# Example: Scheduling ITAAC Inspections

ICN Date

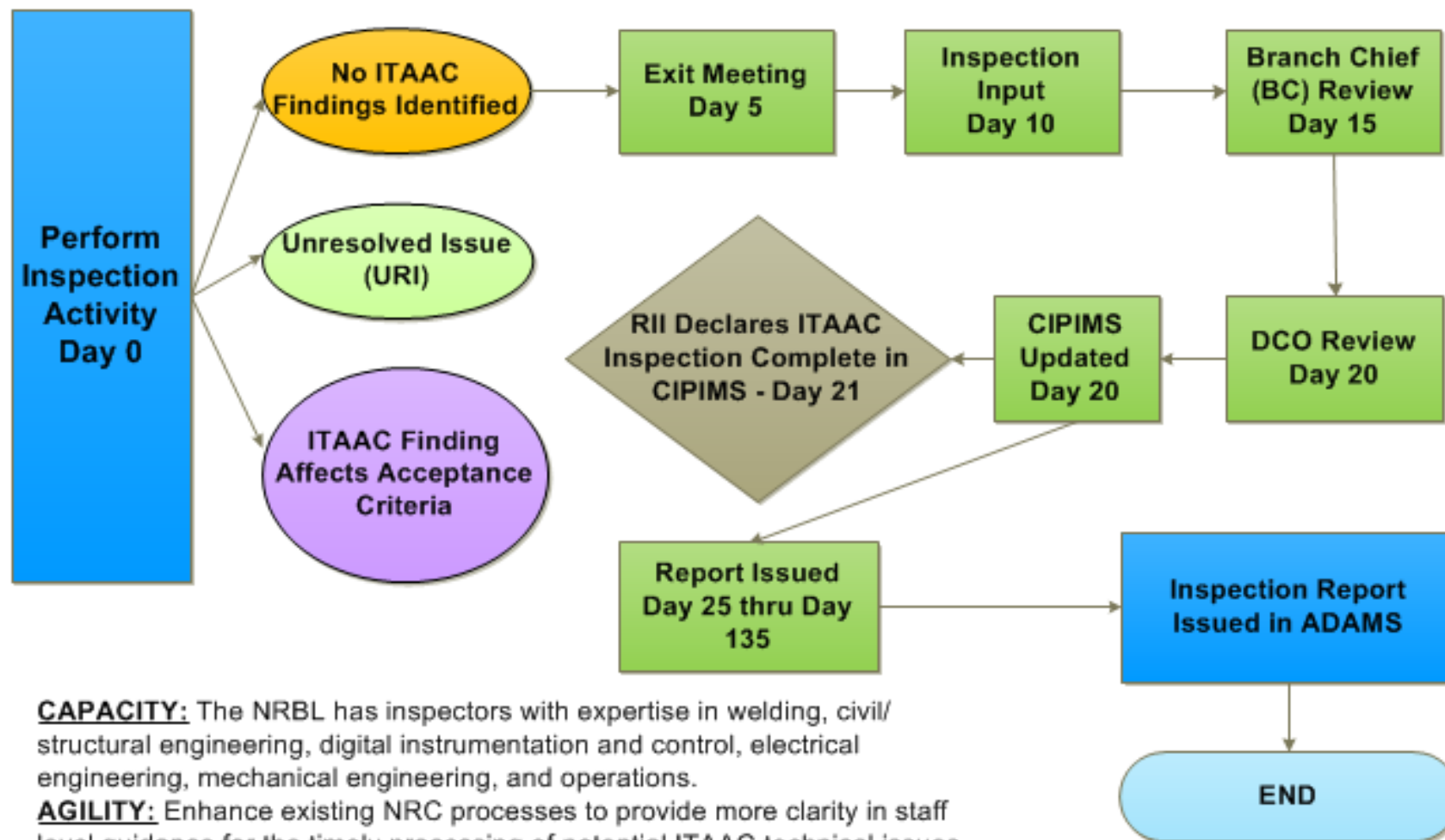


Completed  
Inspections



Upcoming  
Inspections

# Perform ITAAC Inspection Activity



**CAPACITY:** The NRBL has inspectors with expertise in welding, civil/ structural engineering, digital instrumentation and control, electrical engineering, mechanical engineering, and operations.

**AGILITY:** Enhance existing NRC processes to provide more clarity in staff level guidance for the timely processing of potential ITAAC technical issues that may occur during the ITAAC Surge and the 52.103(g) finding timeframe.

**DECISION-MAKING:** ITAAC Inspection completion and results determine when ITAAC can be closed in CIPIMS

# Inspection Completion

Site Actions

Inspection Complete

Edit Item

Delete Item

Version History

Alert Me

Dashboard

PrePlan Inspections

Plan Site Inspections

Input Inspection Results

Management Reports/Views

Manage Data

FAQ

Project Documents

References

Recycle Bin

All Site Content

|                                  |  |
|----------------------------------|--|
| Title                            | VOG3-2.1.01.07.i-AP1000  |
| Work Site                        | VOG3   |
| IMC Number                       | MC2503   |
| DCD                              | AP1000   |
| ITAAC                            | 2.1.01.07.i- Reference ITAAC: No   |
| Program                          |  |
| Targeted                         | No   |
| Owner Branch                     |  |
| Design Acceptance Criteria       |  |
| Inspection Type                  | Standard   |
| Design Commitment                | 7. The new and spent fuel storage racks maintain the effective neutron multiplication factor required by 10 CFR 50.68 limits during normal operation, design basis seismic events, and design basis dropped spent fuel assembly accidents over the spent fuel storage racks. |
| Inspections, Tests, And Analyses | i) Analyses will be performed to calculate the effective neutron multiplication factor in the new and spent fuel storage racks during normal conditions.   |
| Acceptance Criteria              | i) The calculated effective neutron multiplication factor for the new and spent fuel storage racks meets the requirements of 10 CFR 50.68(1) limits under normal conditions.   |
| Seq No                           | 8  |
| ITAAC Family                     | 13F  |
| Display OUO Notice               |  |
| Site Specific Notes              |  |
| Related Documents                |  |
| Inspection Complete              | Yes  |
| Program Manager                  |  |

Version: 9.0

Created at 4/9/2012 4:11 PM by System Account

Last modified at 8/30/2017 7:16 PM by System Account

Close



# ITAAC 13: ITAAC Closure Notification

# ITAAC 13

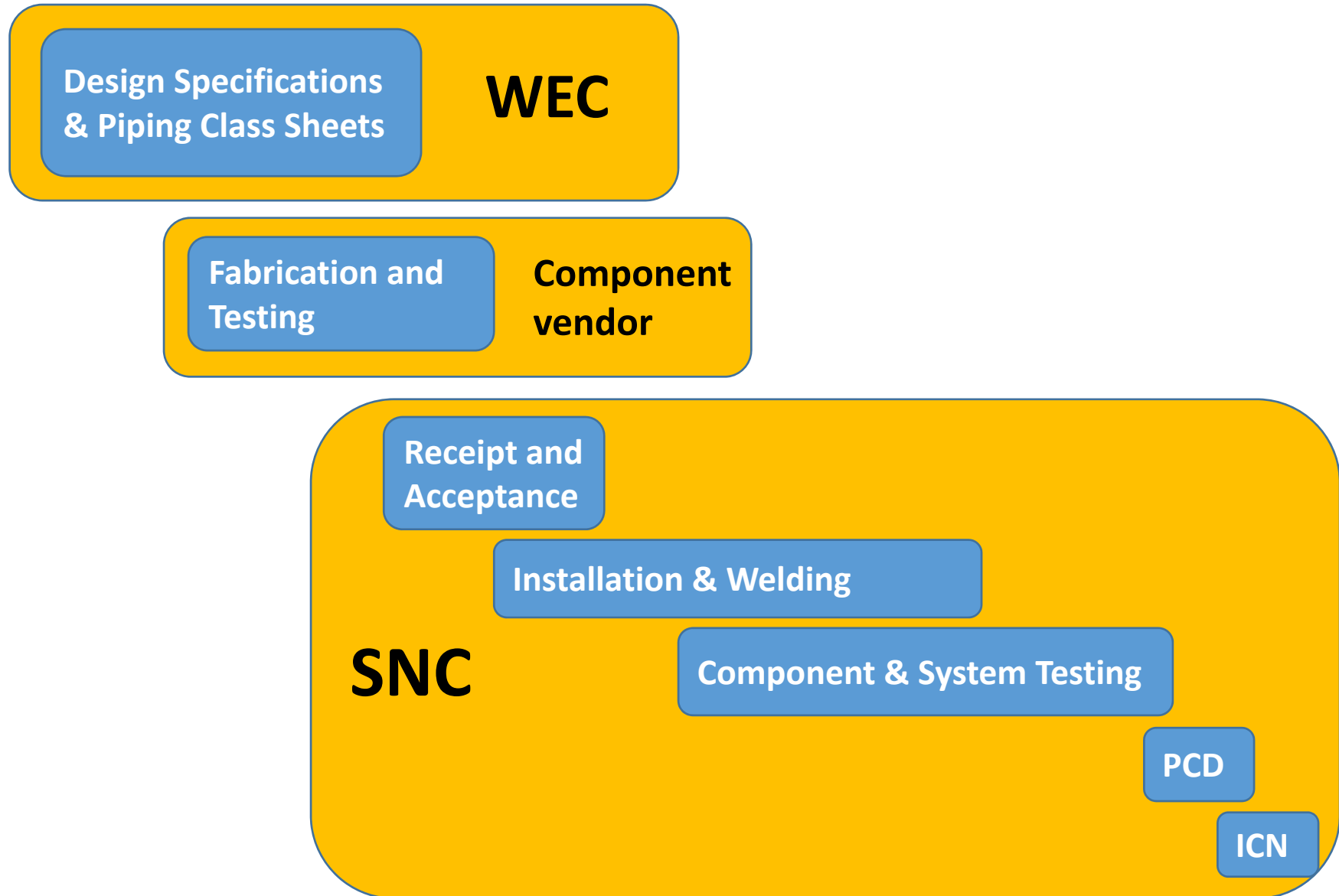
| ITAAC No.  | Design Commitment  | Inspections, Tests, Analyses   | Acceptance Criteria  |
|------------|--|--|--|
| 2.1.02.02a | <p>2.a) The components identified in Table 2.1.2-1 as ASME Code Section III are designed and constructed in accordance with ASME Code Section III requirements.</p> <p>2.b) The piping identified in Table 2.1.2-2 as ASME Code Section III is designed and constructed in accordance with ASME Code Section III requirements.</p> | Inspection will be conducted of the as-built components and piping as documented in the ASME design reports.       | The ASME Code Section III design reports exist for the as-built components and piping identified in Tables 2.1.2-1 and 2.1.2-2 as ASME Code Section III. |
|            | <p>3.a) Pressure boundary welds in components identified in Table 2.1.2-1 as ASME Code Section III meet ASME Code Section III requirements.</p> <p>3.b) Pressure boundary welds in piping identified in Table 2.1.2-2 as ASME Code Section III meet ASME Code Section III requirements.</p>  | Inspection of the as-built pressure boundary welds will be performed in accordance with the ASME Code Section III. | A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds..           |



## ITAAC 13 (Cont.)

| ITAAC No.  | Design Commitment   | Inspections, Tests, Analyses   | Acceptance Criteria  |
|------------|---|--|--|
| 2.1.02.02a | <p>4.a) The components identified in Table 2.1.2-1 as ASME Code Section III retain their pressure boundary integrity at their design pressure.</p> <p>4.b) The piping identified in Table 2.1.2-2 as ASME Code Section III retain its pressure boundary integrity at its design pressure.</p> | A hydrostatic test will be conducted of the as-built components and piping as documented in the ASME design reports.   | A report exists and concludes that the results of the hydrostatic test of the components and piping identified in Tables 2.1.2-1 and 2.1.2-2 as ASME Code Section III conform with the requirements of the ASME Code Section III.                                    |
|            | 5.b) Each of the lines identified in Table 2.1.2-2 for which functional capability is required is designed to withstand combined normal and seismic design basis loads without a loss of its functional capability.   | Inspection will be performed for the existence of a report verifying that the as-built piping meets the requirements for functional capability.  | A report exists and concludes that each of the as-built lines identified in Table 2.1.2-2 for which functional capability is required meets the requirements for functional capability.  |
|            | 6) Each of the as-built lines identified in Table 2.1.2-2 for LBB meets the LBB criteria, or an evaluation is performed of the protection from the dynamic effects of a rupture of the line.  | Inspection will be performed for the existence of an LBB evaluation report or an evaluation report on the protection from dynamic effects of a pipe break. Section 3.3, Nuclear Island Buildings, contains the design descriptions and inspections, tests, analyses, and acceptance criteria for protection from the dynamic effects of pipe rupture.. | An LLB evaluation report exists and concludes that the LBB acceptance criteria are met by the as-built RCS piping and piping materials, or a pipe break evaluation report exists and concludes that protection from the dynamic effects of a line break is provided. |

# ITAAC 13 Timeline



# Reference Documents and Examples

## Reference Documents:

- ASME Section III Code Design Reports
- ASME Code Data Reports
- Design Specifications and Design Drawings
- Piping Class Sheets and Standard Details
- Functional Capability Reports
- Leak Before Break Reports

## Applicable NEI 08-01 Examples:

- D-7, Pressure Boundary Welds
- D-28, ASME Component Hydrostatic Test
- D-29, ASME Code Section III Components
- D-30, ASME Code Section III Components
- D-31, ASME Code Section III Piping

# ICN Recommendations

- SNC addressed the staff's comments provided on the draft UIN for ITAAC 355 and applied those lessons learned to ITAAC 13
- In the Attachments for both documents the purpose of the "\*" on the tables should be defined by adding a footnote
- The line items in the ITA and AC sections should to be tied to the applicable specific design commitments (i.e., 2.a, 2.b, 3.a, etc.) for clarity



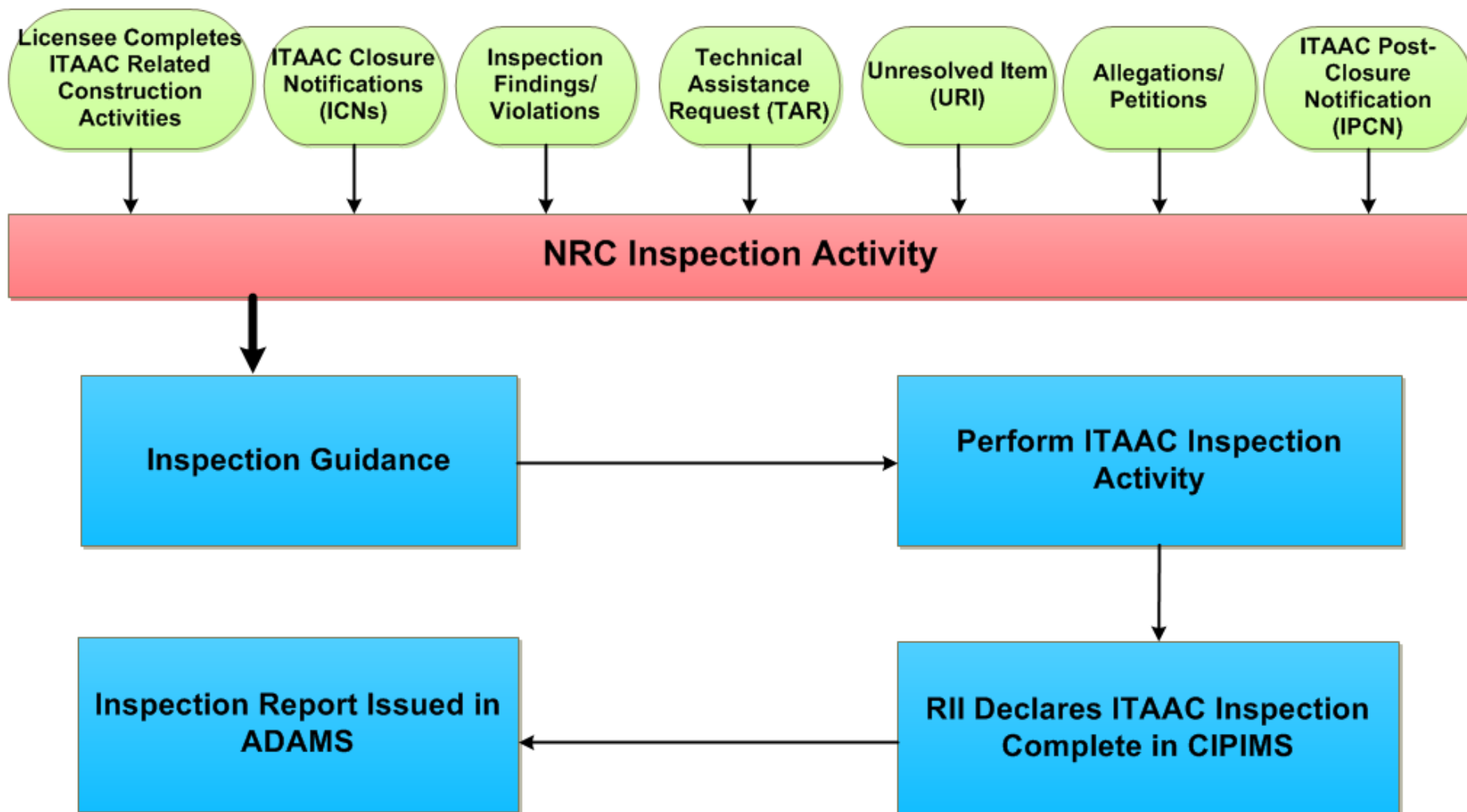
# ITAAC 13: ITAAC Inspection Planning

# ITAAC 13

| ITAAC No.  | Design Commitment  | Inspections, Tests, Analyses   | Acceptance Criteria  |
|------------|--|--|--|
| 2.1.02.02a | <p>2.a) The components identified in Table 2.1.2-1 as ASME Code Section III are designed and constructed in accordance with ASME Code Section III requirements.</p> <p>2.b) The piping identified in Table 2.1.2-2 as ASME Code Section III is designed and constructed in accordance with ASME Code Section III requirements.</p> | Inspection will be conducted of the as-built components and piping as documented in the ASME design reports. | The ASME Code Section III design reports exist for the as-built components and piping identified in Tables 2.1.2-1 and 2.1.2-2 as ASME Code Section III. |

# ITAAC Inspection Process

## Inspection Initiators



# ITAAC Matrix

|                                     | A)As-Built<br>Insp | B)<br>Welding | C)Const<br>Testing | D) Opn<br>Testing | E)Qual<br>Criteria | F)Design/<br>Fab Req |
|-------------------------------------|--------------------|---------------|--------------------|-------------------|--------------------|----------------------|
| 01)Foundations &<br>Buildings       | A01                | B01           | C01                | D01               | E01                | F01                  |
| 02)Struc Conc                       | A02                | B02           | C02                | D02               | E03                | F02                  |
| 03)Piping                           | A03                | B03           | C03                | D03               | E03                | F03                  |
| 04)Pipe Spt &<br>Restraints         | A04                | B04           | C04                | D04               | E04                | F04                  |
| 05)RPV & Int'ls                     | A05                | B05           | C05                | D05               | E05                | F05                  |
| 06)Mech Comp                        | A06                | B06           | C06                | D06               | E06                | F06                  |
| 07)Valves                           | A07                | B07           | C07                | D07               | E07                | F07                  |
| 08)Elec Comp &<br>Systems           | A08                | B08           | C08                | D08               | E08                | F08                  |
| 09)Elec Cable                       | A09                | B09           | C09                | D09               | E09                | F09                  |
| 10)I&C Comp &<br>Systems            | A10                | B10           | C10                | D10               | E10                | F10                  |
| 11)Containment<br>Integrity & Pen's | A11                | B11           | C11                | D11               | E11                | F11                  |
| 12)HVAC                             | A12                | B12           | C12                | D12               | E12                | F12                  |
| 13)Eqp Handle &<br>Fuel Racks       | A13                | B13           | C13                | D13               | E13                | F13                  |
| 14)Complex Sys<br>w/ Multi-Comp     | A14                | B14           | C14                | D14               | E14                | F14                  |
| 15)Fire Prot                        | A15                | B15           | C15                | D15               | E15                | F15                  |
| 16)Engineering                      | A16                | B16           | C16                | D16               | E16                | F16                  |
| 17)Security                         | A17                | B17           | C17                | D17               | E17                | F17                  |
| 18)EP                               | A18                | B18           | C18                | D18               | E18                | F18                  |
| 19) Rad Prot                        | A19                | B19           | C19                | D19               | E19                | F19                  |



# Inspection Planning

Inspectors consider the following when planning for inspections:

- Inspection Plans (IMC 2506)
- Licensing Basis
- Operating/Construction Experience
- Completed Inspections and Findings
- Resident Inspector Insight
- Licensee's Construction Schedule

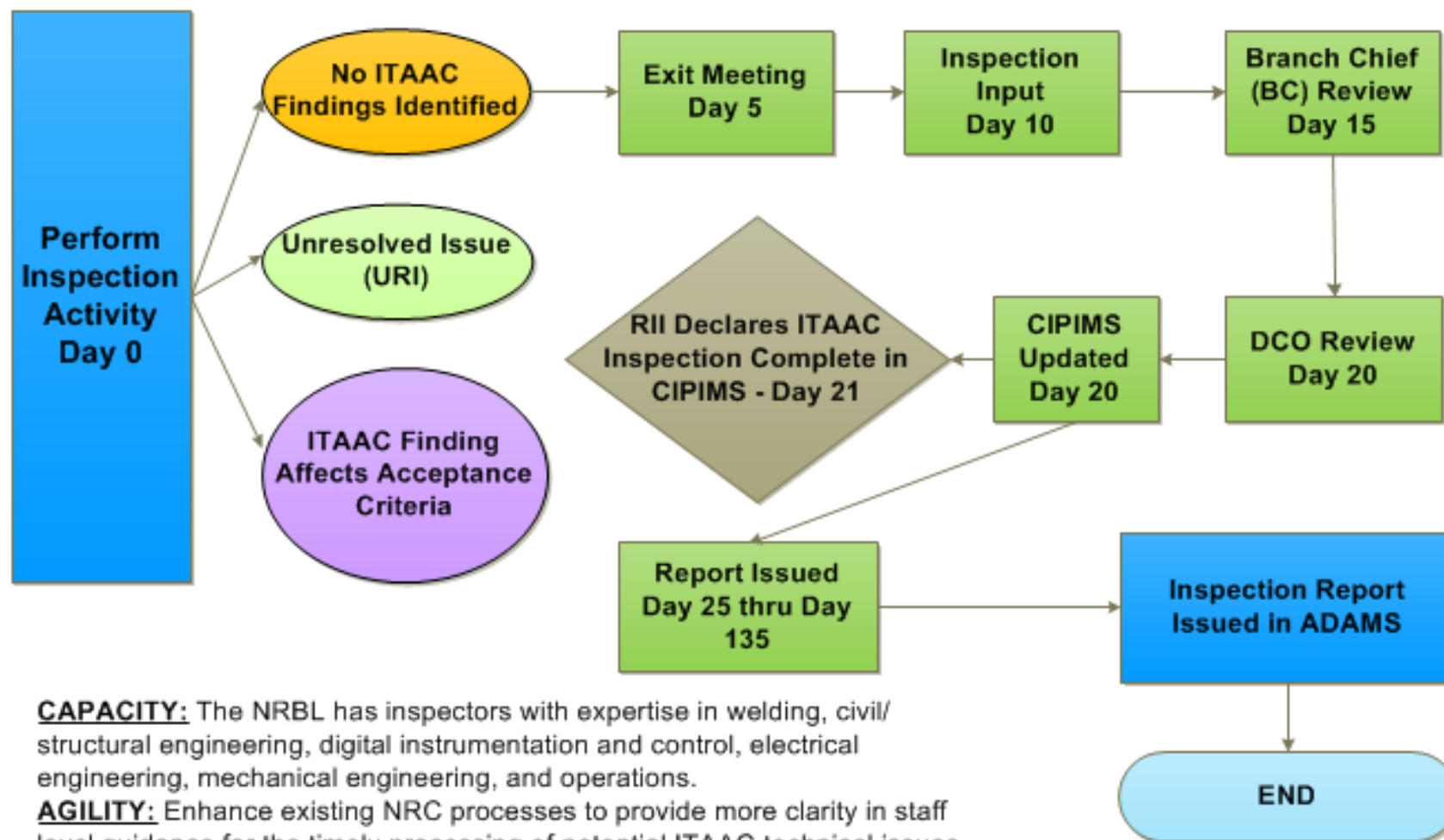
# ASME Inspection – ITAAC 13

- Family 06F, but includes aspects of 03B, 06B, 03F, 04F
- Uses 65001.F-02.01 (mechanical design) or 65001.F-02.02 (fabrication)
- F-02.01 – “Review the applicable SSC design documents associated with ITAAC to determine whether the documents adequately define the final design and arrangement of these SSCs. For the selected ITAAC criteria or attributes, the inspector should verify that the design and fabrication inputs were correctly identified and documented ”

# ASME Inspection – ITAAC 13

- F-02.02 – “Review a sample of SSCs fabrication records for selected ITAAC to verify compliance with applicable codes...”
- (a) Review a sample of purchase orders and verify that they appropriately specify acceptable quality, technical, and 10 CFR Part 21/10 CFR 50.55(e) requirements.

# Perform ITAAC Inspection Activity




**CAPACITY:** The NRBL has inspectors with expertise in welding, civil/ structural engineering, digital instrumentation and control, electrical engineering, mechanical engineering, and operations.

**AGILITY:** Enhance existing NRC processes to provide more clarity in staff level guidance for the timely processing of potential ITAAC technical issues that may occur during the ITAAC Surge and the 52.103(g) finding timeframe.

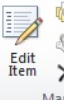
**DECISION-MAKING:** ITAAC Inspection completion and results determine when ITAAC can be closed in CIPIMS

# Inspection Completion

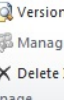
Site Actions



Inspection Complete



Edit Item



Delete Item

Browse

View

Version History

Alert Me

Manage

Actions

Dashboard

PrePlan Inspections

Plan Site Inspections

Input Inspection Results

Management Reports/Views

Manage Data

FAQ

Project Documents

References

Recycle Bin

All Site Content

|                                  |  |
|----------------------------------|--|
| Title                            | VOG3-2.1.01.07.i-AP1000  |
| Work Site                        | VOG3   |
| IMC Number                       | MC2503   |
| DCD                              | AP1000   |
| ITAAC                            | 2.1.01.07.i- Reference ITAAC: No   |
| Program                          |  |
| Targeted                         | No   |
| Owner Branch                     |  |
| Design Acceptance Criteria       |  |
| Inspection Type                  | Standard   |
| Design Commitment                | 7. The new and spent fuel storage racks maintain the effective neutron multiplication factor required by 10 CFR 50.68 limits during normal operation, design basis seismic events, and design basis dropped spent fuel assembly accidents over the spent fuel storage racks. |
| Inspections, Tests, And Analyses | i) Analyses will be performed to calculate the effective neutron multiplication factor in the new and spent fuel storage racks during normal conditions.   |
| Acceptance Criteria              | i) The calculated effective neutron multiplication factor for the new and spent fuel storage racks meets the requirements of 10 CFR 50.68(1) limits under normal conditions.   |
| Seq No                           | 8  |
| ITAAC Family                     | 13F  |
| Display OUO Notice               |  |
| Site Specific Notes              |  |
| Related Documents                |  |
| Inspection Complete              | Yes  |
| Program Manager                  |  |

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Close



Questions?



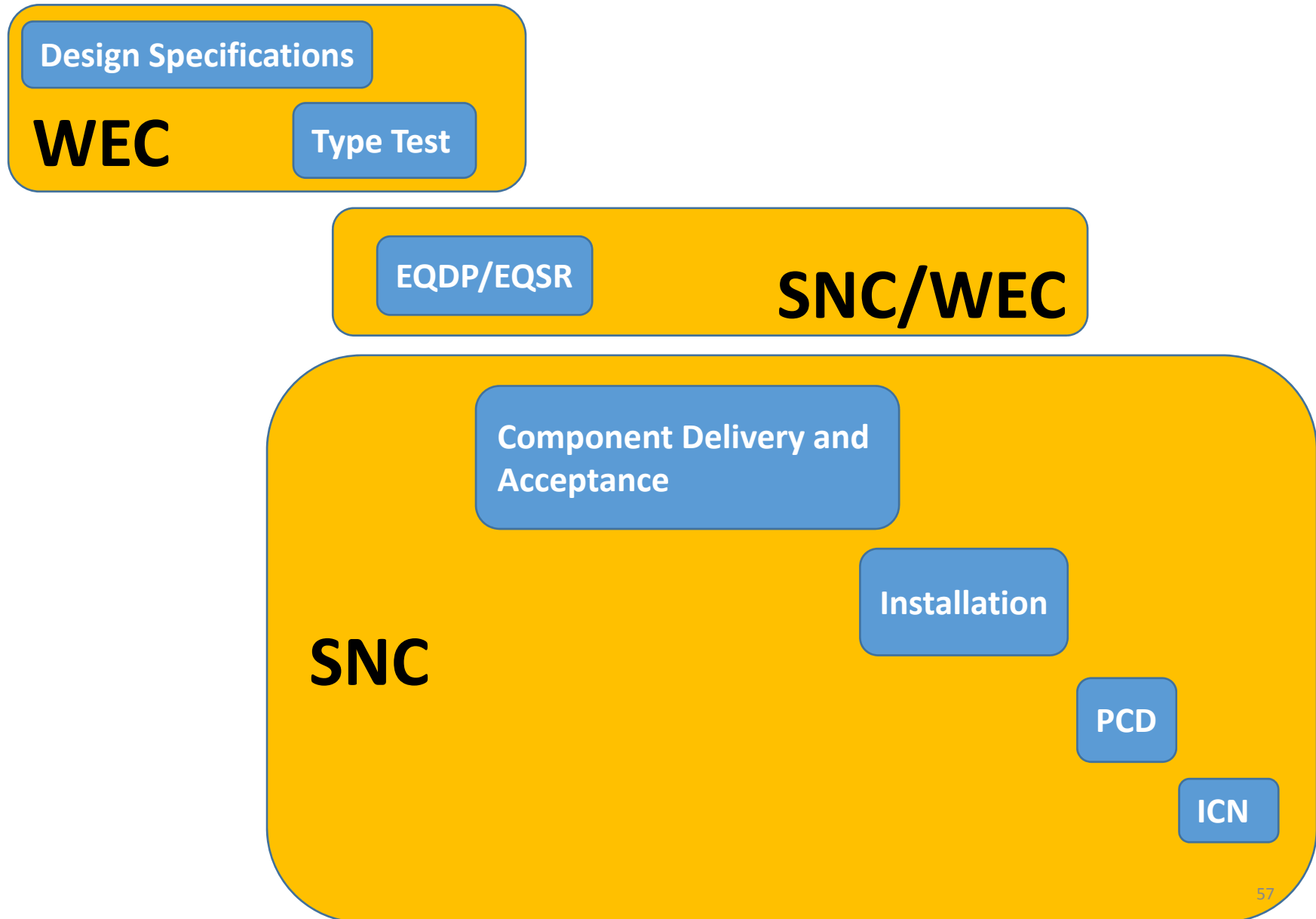
# ITAAC 19: ITAAC Closure Notification

# ITAAC 19

| ITAAC No.    | Design Commitment  | Inspections, Tests, Analyses  | Acceptance Criteria  |
|--------------|--|---|--|
| 2.1.02.05a.i | 5.a) The seismic Category I equipment identified in Table 2.1.2-1 can withstand seismic design basis loads without loss of safety function.  | i) Inspection will be performed to verify that the seismic Category I equipment and valves identified in Table 2.1.2-1 are located on the Nuclear Island.   | i) The seismic Category I equipment identified in Table 2.1.2-1 is located on the Nuclear Island.  |
|              |  | ii) Type tests, analyses, or a combination of type tests and analyses of seismic Category I equipment will be performed.  | ii) A report exists and concludes that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function.  |
|              |  | iii) Inspection will be performed for the existence of a report verifying that the as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.  | iii) A report exists and concludes that the as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.  |
|              | 7.a) The Class 1E equipment identified in Table 2.1.2-1 as being qualified for a harsh environment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function. | i) Type tests, analyses, or a combination of type tests and analyses will be performed on Class 1E equipment located in a harsh environment.<br><br>ii) Inspection will be performed of the as-built Class 1E equipment and the associated wiring, cables, and terminations located in a harsh environment. | i) A report exists and concludes that the Class 1E equipment identified in Table 2.1.2-1 as being qualified for a harsh environment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function.<br><br>ii) A report exists and concludes that the as-built Class 1E equipment and the associated wiring, cables, and terminations identified in Table 2.1.2-1 as being qualified for a harsh environment are bounded by type tests, analyses, or a combination of type tests and analyses. |



# ITAAC 19 Timeline



# Reference Documents and Examples

## Reference Documents:

- Equipment Qualification Data Packages (EQDPs)
- Equipment Qualification Summary Reports (EQSRs)
- Equipment Qualification As-built Reconciliation Reports
- Drawings
- Design Specifications
- IEEE 323-1974
- IEEE 344-1987
- USFAR Section 3.11, Appendix 3D

## Applicable NEI 08-01 Examples:

- D-43, Cat 1 Items on Nuclear Island
- D-44, Seismic Qualification
- D-45, Seismic Site Verification
- Demo-1, Environment Type Test
- D-32, Harsh Environmental Qualification

# ICN Recommendations

- General high quality
- ITAAC Determination Basis is separated into sections to match each AC
- Each section follows closely to NEI 08-01 D-43, D-44, D-45, Demo-1, and D-32
- Attachment A table header - EQ reports are mislabeled as Ref 2, and the EQRR are mislabeled as Ref 7. These should be reversed.
- ADS Discharge Header B Vacuum Relief Valve should include submergence testing
- Define the method(s) from UFSAR Appendix 3D that were used to qualify the SSC



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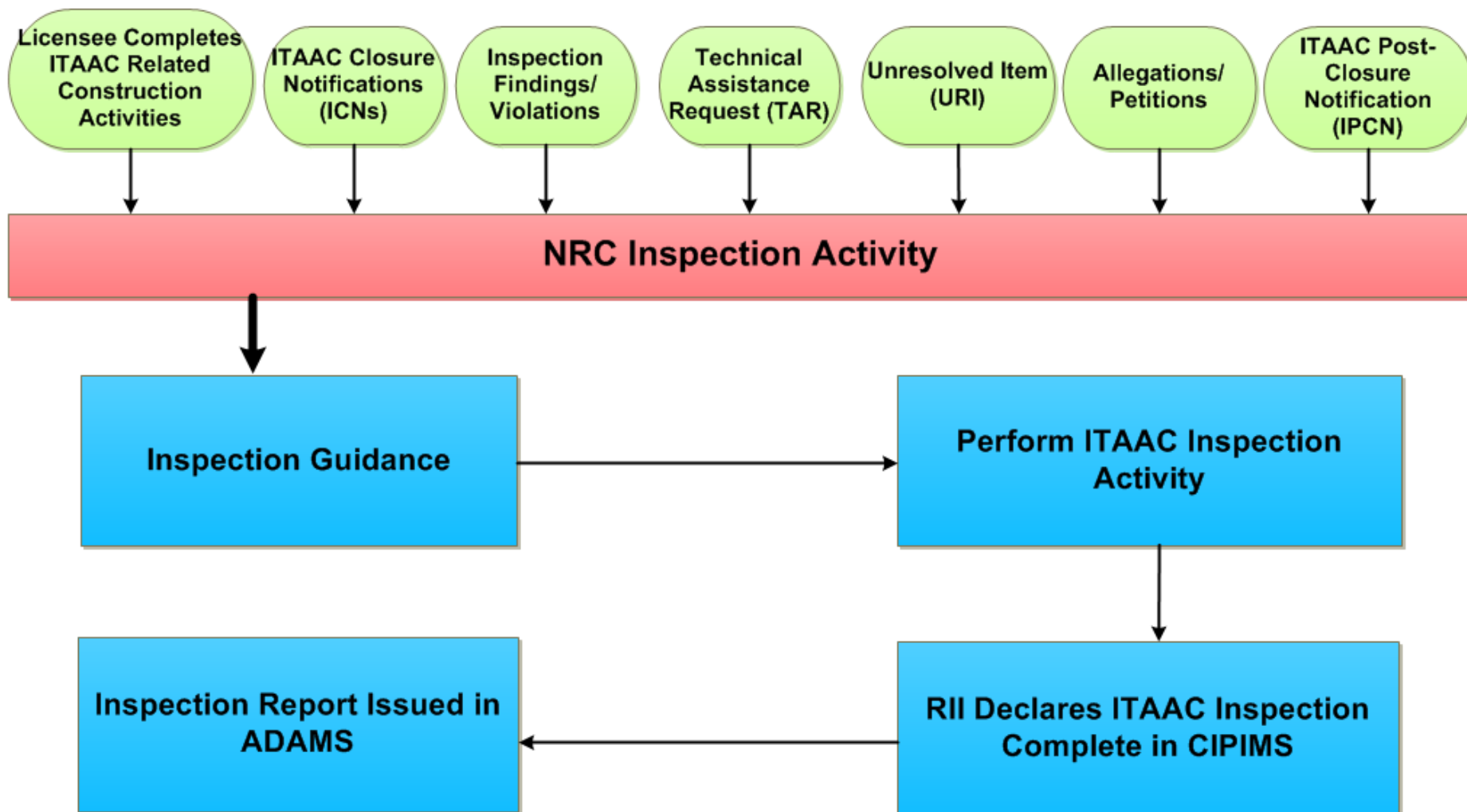
## ITAAC 19: ITAAC Inspection Planning

# ITAAC 19

| ITAAC No.    | Design Commitment   | Inspections, Tests, Analyses  | Acceptance Criteria   |
|--------------|---|---|---|
| 2.1.02.05a.i | 5.a) The seismic Category I equipment identified in Table 2.1.2-1 can withstand seismic design basis loads without loss of safety function. | i) Inspection will be performed to verify that the seismic Category I equipment and valves identified in Table 2.1.2-1 are located on the Nuclear Island. | i) The seismic Category I equipment identified in Table 2.1.2-1 is located on the Nuclear Island.   |
|              |   | ii) Type tests, analyses, or a combination of type tests and analyses of seismic Category I equipment will be performed.                                  | ii) A report exists and concludes that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function. |

# ITAAC Inspection Process

## Inspection Initiators



# ITAAC Matrix

|                                  | A)As-Built<br>Insp | B)<br>Welding | C)Const<br>Testing | D) Opn<br>Testing | E)Qual<br>Criteria | F)Design/<br>Fab Req |
|----------------------------------|--------------------|---------------|--------------------|-------------------|--------------------|----------------------|
| 01)Foundations & Buildings       | A01                | B01           | C01                | D01               | E01                | F01                  |
| 02)Struc Conc                    | A02                | B02           | C02                | D02               | E03                | F02                  |
| 03)Piping                        | A03                | B03           | C03                | D03               | E03                | F03                  |
| 04)Pipe Spt & Restraints         | A04                | B04           | C04                | D04               | E04                | F04                  |
| 05)RPV & Int'ls                  | A05                | B05           | C05                | D05               | E05                | F05                  |
| 06)Mech Comp                     | A06                | B06           | C06                | D06               | E06                | F06                  |
| 07)Valves                        | A07                | B07           | C07                | D07               | E07                | F07                  |
| 08)Elec Comp & Systems           | A08                | B08           | C08                | D08               | E08                | F08                  |
| 09)Elec Cable                    | A09                | B09           | C09                | D09               | E09                | F09                  |
| 10)I&C Comp & Systems            | A10                | B10           | C10                | D10               | E10                | F10                  |
| 11)Containment Integrity & Pen's | A11                | B11           | C11                | D11               | E11                | F11                  |
| 12)HVAC                          | A12                | B12           | C12                | D12               | E12                | F12                  |
| 13)Eqp Handle & Fuel Racks       | A13                | B13           | C13                | D13               | E13                | F13                  |
| 14)Complex Sys w/ Multi-Comp     | A14                | B14           | C14                | D14               | E14                | F14                  |
| 15)Fire Prot                     | A15                | B15           | C15                | D15               | E15                | F15                  |
| 16)Engineering                   | A16                | B16           | C16                | D16               | E16                | F16                  |
| 17)Security                      | A17                | B17           | C17                | D17               | E17                | F17                  |
| 18)EP                            | A18                | B18           | C18                | D18               | E18                | F18                  |
| 19) Rad Prot                     | A19                | B19           | C19                | D19               | E19                | F19                  |

# Inspection Planning

Inspectors consider the following when planning for inspections:

- Inspection Plans (IMC 2506)
- Licensing Basis
- Operating/Construction Experience
- Completed Inspections and Findings
- Resident Inspector Insight
- Licensee's Construction Schedule



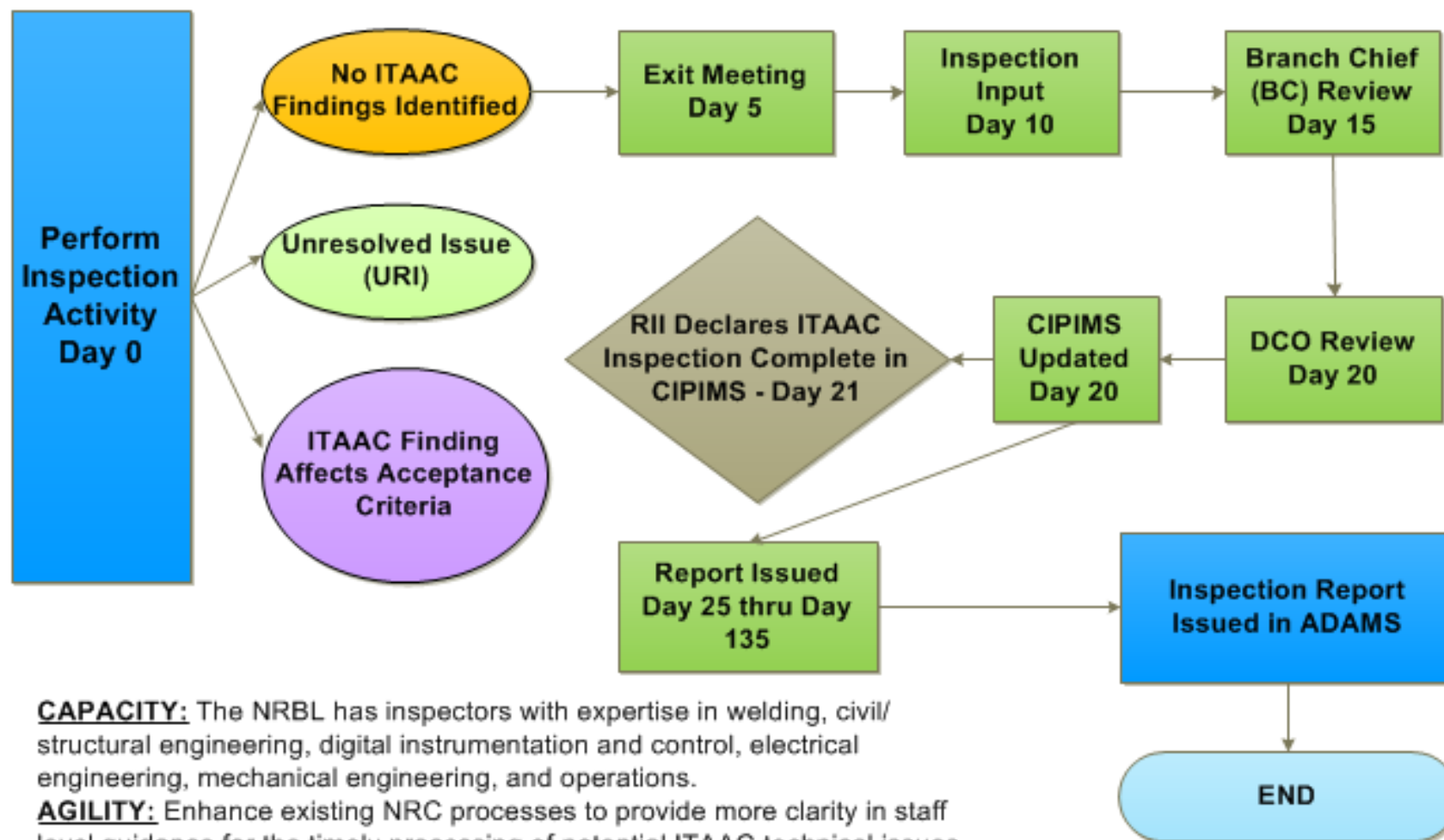
# Qualification Inspection – ITAAC 19

- Family 14A, but primary inspections done through 14E, 14F, 10E, 09F
- Uses 65001.E-02.01, 02.03, 02.04, 02.05 (component qualification) or 65001.E-02.05 (component installation)
- E-02.01 – “Verify that the design basis was appropriately translated into the SSC qualification test...”
  - (b) Identify the limiting design basis parameters (i.e., minimum or maximum voltage, temperature, or pressure) that were used as input for the qualification of the SSC.

# Qualification Inspection – ITAAC 19

- E-02.05 – “Perform a walk down of the selected SSCs, where accessible, to verify that the equipment is installed in a manner consistent with the assumptions in the qualification...”
  - Seismic Category I equipment must be oriented and anchored the same way as assumed in the qualification...

# Perform ITAAC Inspection Activity



**CAPACITY:** The NRBL has inspectors with expertise in welding, civil/ structural engineering, digital instrumentation and control, electrical engineering, mechanical engineering, and operations.

**AGILITY:** Enhance existing NRC processes to provide more clarity in staff level guidance for the timely processing of potential ITAAC technical issues that may occur during the ITAAC Surge and the 52.103(g) finding timeframe.

**DECISION-MAKING:** ITAAC Inspection completion and results determine when ITAAC can be closed in CIPIMS

# Inspection Completion

Site Actions

Inspection Complete

Edit Item

Delete Item

Version History

Alert Me

Dashboard

PrePlan Inspections

Plan Site Inspections

Input Inspection Results

Management Reports/Views

Manage Data

FAQ

Project Documents

References

Recycle Bin

All Site Content

|                                  |  |
|----------------------------------|--|
| Title                            | VOG3-2.1.01.07.i-AP1000  |
| Work Site                        | VOG3   |
| IMC Number                       | MC2503   |
| DCD                              | AP1000   |
| ITAAC                            | 2.1.01.07.i- Reference ITAAC: No   |
| Program                          |  |
| Targeted                         | No   |
| Owner Branch                     |  |
| Design Acceptance Criteria       |  |
| Inspection Type                  | Standard   |
| Design Commitment                | 7. The new and spent fuel storage racks maintain the effective neutron multiplication factor required by 10 CFR 50.68 limits during normal operation, design basis seismic events, and design basis dropped spent fuel assembly accidents over the spent fuel storage racks. |
| Inspections, Tests, And Analyses | i) Analyses will be performed to calculate the effective neutron multiplication factor in the new and spent fuel storage racks during normal conditions.   |
| Acceptance Criteria              | i) The calculated effective neutron multiplication factor for the new and spent fuel storage racks meets the requirements of 10 CFR 50.68(1) limits under normal conditions.   |
| Seq No                           | 8  |
| ITAAC Family                     | 13F  |
| Display OUO Notice               |  |
| Site Specific Notes              |  |
| Related Documents                |  |
| Inspection Complete              | Yes  |
| Program Manager                  |  |

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Last modified at 8/30/2017 7:16 PM by System Account

Close



## Potential ITAAC Inspection Issues

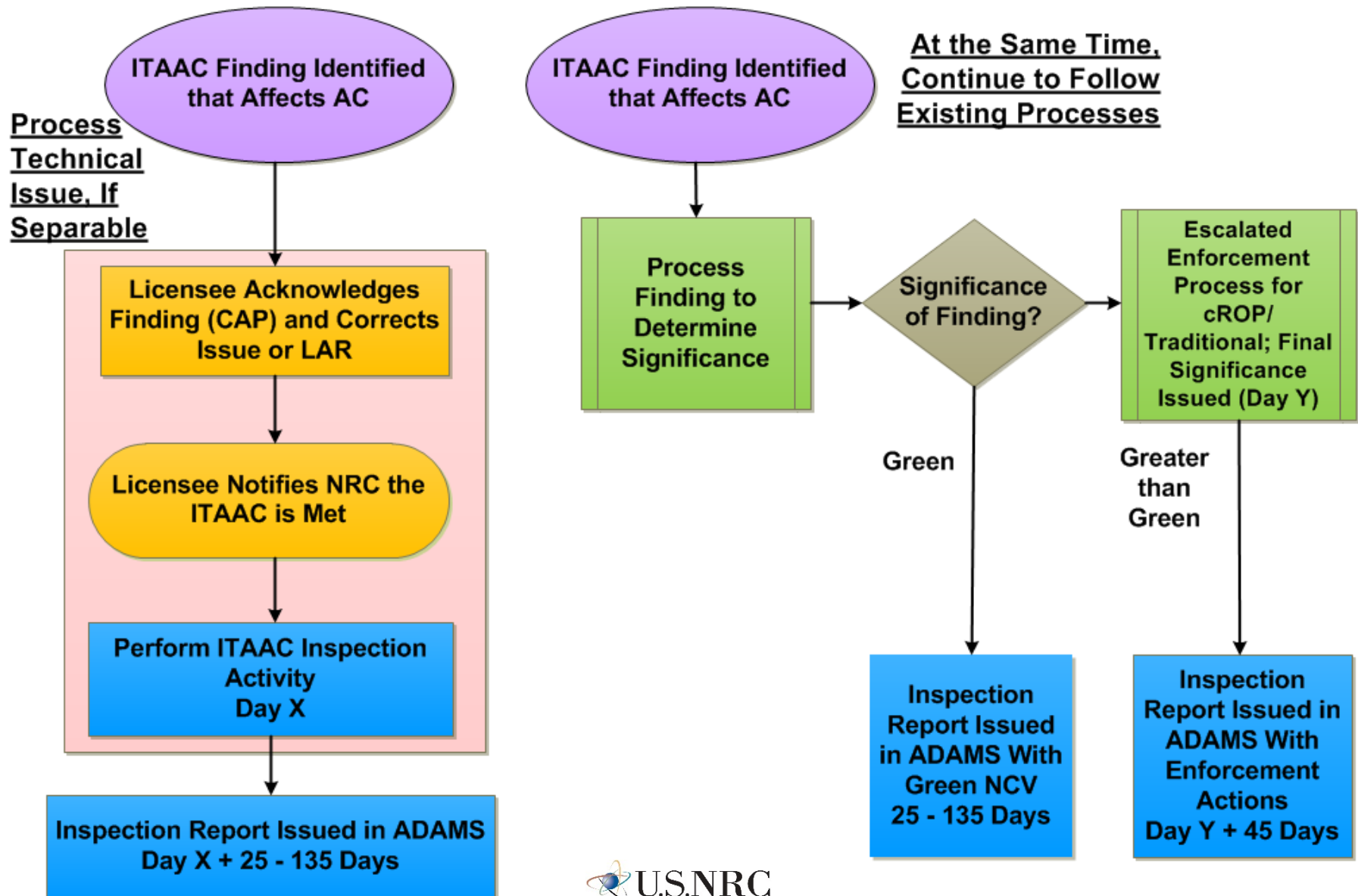
# Potential Inspection Initiators

- Findings
- URIs
- TARs
- Allegations
- Contentions

# NRC Process for ITAAC Findings

- ITAAC findings stay open because NRC must confirm that the “non-conforming condition that materially affects the ITAAC no longer exists” (IMC 0613)
- NRC will close finding through inspection after the non-conforming condition is fixed
- Not all findings are ITAAC findings – finding must be material to whether the AC is met

# ITAAC Finding that Affects Acceptance Criteria





# Finding Example

- *Day 0* - During an inspection, RCS weld is performed with inadequate welding procedure – Exit with Apparent Violation (AV)
- *Day 10\** – NRC issues inspection report – AV ITAAC finding
- *Day 15\** - Licensee does extent of condition – this is the only weld, which is repaired
- *Day 20\** - NRC inspects repaired weld – changes finding from ITAAC to Construction finding
- *Day 55\** – NRC issues final inspection report – remove ITAAC portion of AV and results in Open AV, not impacting ITAAC
- *Day 60\** - 52.103g finding occurs
- *Day 120* - AV results (after Escalated Enforcement process) in an escalated violation
- *Day 180* - NRC conducts supplemental inspection to inspect root cause analysis performed by licensee

*Day\** - An example and not representative of all cases.

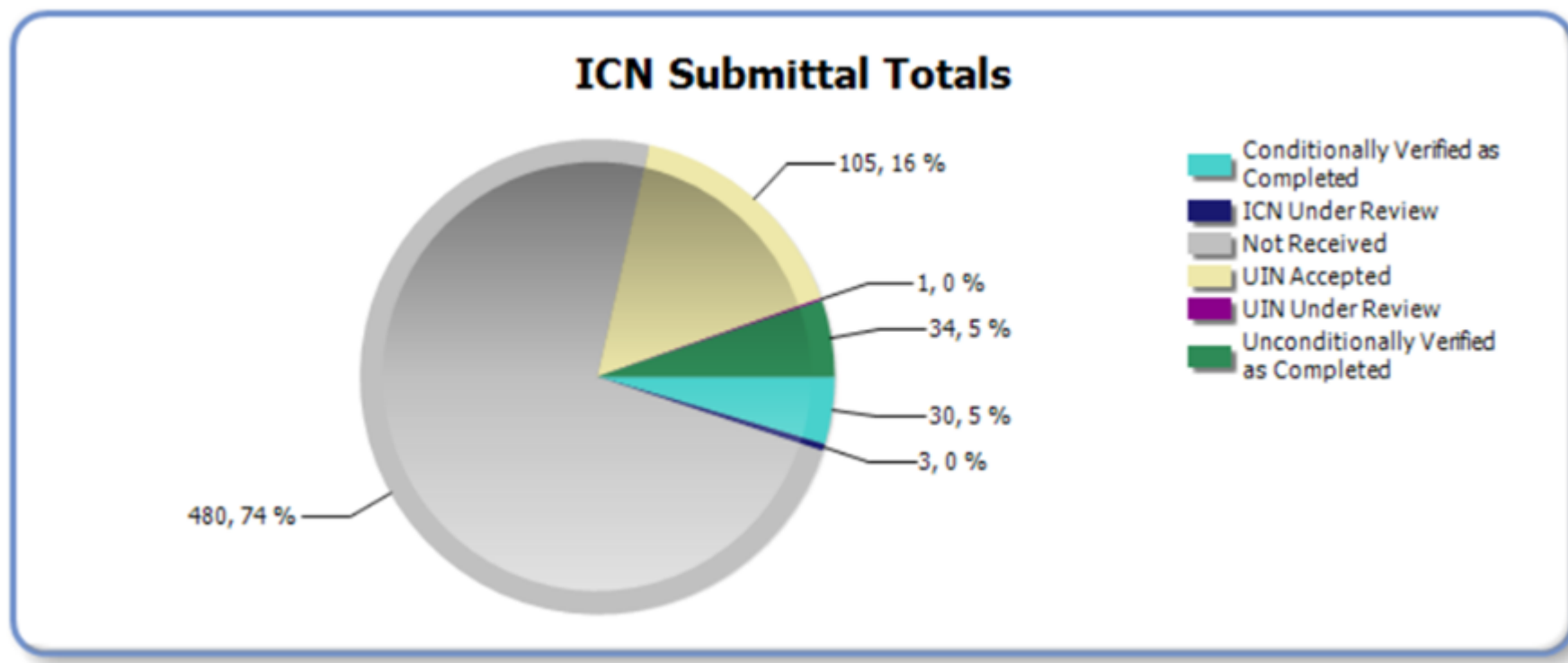
# Other Inspection Initiators

- TAR – RII asks the Division of Engineering a question on code applicability
- URI – Does a deviation from the concrete code represent a Performance Deficiency?
- Allegation – Receive allegation on test equipment used for preoperational tests
- Contentions – Public makes required showing that AC are not met and that operation is therefore contrary to adequate protection

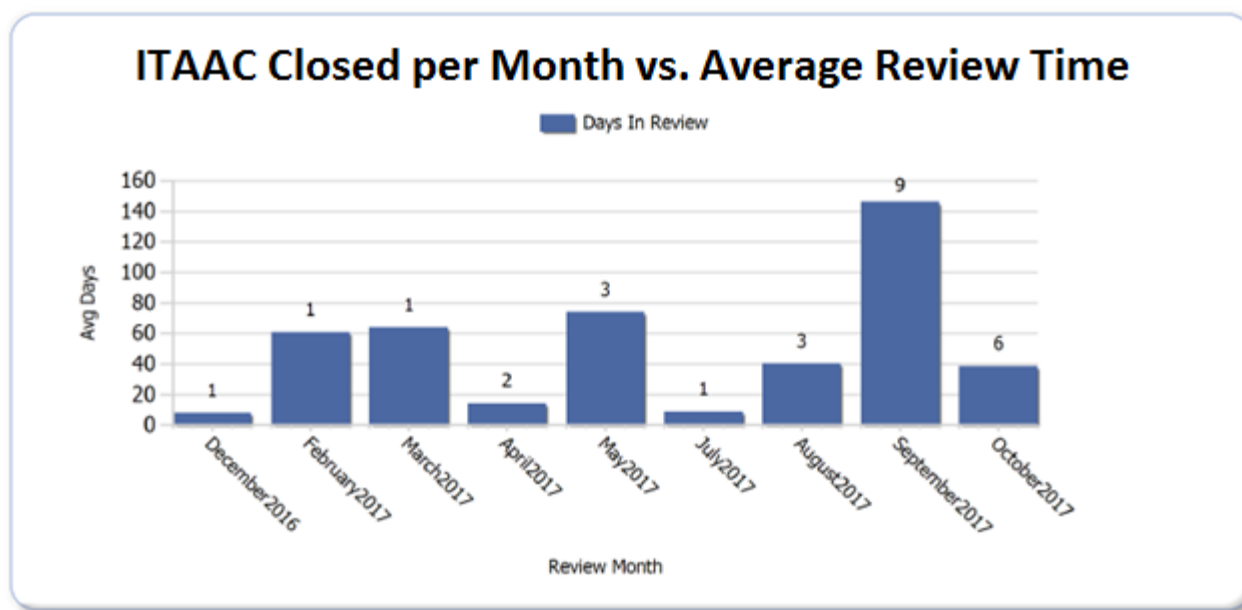


## ITAAC Metrics and Dashboards

# Performance Dashboard



# Performance Dashboard



# Performance Dashboard

| Review Time       | Total ICNS Currently In Review |
|-------------------|--------------------------------|
| Under 30          | 0                              |
| Between 30 and 45 | 1                              |
| Over 45           | 2                              |
| Total             | 3                              |

| Review Time       | Total UINs Currently In Review |
|-------------------|--------------------------------|
| Under 30          | 1                              |
| Between 30 and 45 | 0                              |
| Over 45           | 0                              |
| Total             | 1                              |

| Review Time       | ICNs Awaiting NRC Inspection |
|-------------------|------------------------------|
| Under 30          | 0                            |
| Between 30 and 45 | 1                            |
| Over 45           | 2                            |
| Total             | 3                            |



| Review Time       | ICNs Under Review |
|-------------------|-------------------|
| Under 15          | 0                 |
| Between 15 and 22 | 0                 |
| Over 22           | 1                 |
| Total             | 1                 |

| Review Time       | ICNs Under Technical Review |
|-------------------|-----------------------------|
| Under 15          | 0                           |
| Between 15 and 22 | 0                           |
| Over 22           | 2                           |
| Total             | 2                           |

| Review Time       | ICNs Under Disposition |
|-------------------|------------------------|
| Under 30          | 0                      |
| Between 30 and 45 | 0                      |
| Over 45           | 0                      |
| Total             | 0                      |

Note- Dates will change as the 103(g) date approaches.  
Staff will challenge the dates if more than 90% green.

# Performance Dashboard

| Unit | Review Type         | ITAAC Index No.  | ITAAC Section No. | Targeted (T) or Non-Targeted (NT) | Start Date for ICN Review  | NRC Inspections Complete? | Days in ICN Review |
|------|---------------------|---|-------------------|-----------------------------------|---|---------------------------|--------------------|
| VOG3 | <a href="#">ICN</a> | <a href="#">536</a>   | 2.5.02.07c        | T                                 | 05/31/2017  | Yes                       | 190                |
| VOG3 | <a href="#">ICN</a> | <a href="#">737</a>   | 3.1.00.05         | T                                 | 10/23/17  | No                        | 45                 |
| VOG3 | <a href="#">ICN</a> | <a href="#">849</a>   | E.3.9.05.01.01    | T                                 | 10/31/2017  | No                        | 37                 |

# Performance Dashboard

## New Reactor Construction Inspection and Communciations Dashboard

| ICNs SUBMITTED and PROJECTED TO BE SUBMITTED (next 90 days) |                    |               | ITAAC INSPECTION FINDINGS (Based on sub-indicators A.1 and A.2) |        |     | TECHNICAL RESOLUTION ISSUES (Based on sub-indicators B.1 and B.2) |        |     | ITAAC SCREENING ISSUES (Based on sub-indicators C.1 and C.2) |        |     | INSPECTION REPORT INPUTS |                            |                          |
|---|--------------------|---------------|---|--------|-----|---|--------|-----|--|--------|-----|--------------------------|----------------------------|--------------------------|
| GREEN: 0-30 Days  | YELLOW: 31-60 Days | RED: 60+ Days | GREEN   | YELLOW | RED | GREEN   | YELLOW | RED | GREEN  | YELLOW | RED | GREEN: Inputs on time    | YELLOW: Inputs 1 week late | RED: Inputs 2 weeks late |
| 5   | 2                  | 1             | 4   | 1      | 1   | 3   | 1      | 1   | 0  | 0      | 0   | 8                        | 3                          | 2                        |

(Engagement may be internal and/or external depending on the issue type)  
 RED - RII RA (Internal) to Licensee VP (External)  
 YELLOW - RII DCO Director (Internal) to Licensing Director (External)  
 GREEN - Continue Monitoring - DCO Branch Chief and Licensing Supervisor

\*Data on this slide is for demonstration purposes only



# ICNs Submitted Metric

|                   | Unit  | ITAAC   | ICN Date<br>(Received or<br>expected) | Inspection Status   | Projected<br>Inspection Date<br>(exit) | Projected<br>completion vs.<br>Submittal |
|-------------------|-------|---------|---------------------------------------|---|--|--|
| Submitted<br>ICNs | U4    | ITAAC 1 | 11/06/2017                            | Inspection scheduled, licensee notified, resource assigned.<br><br>Expect no scheduling issues for inspection completion  | 12/01/2017                             | 40                                       |
|                   | U3/U4 | ITAAC 2 | 12/04/2017                            | Inspection available on week of 12/11.<br><br>Inspector assigned  | 12/15/2017                             | 26                                       |
|                   | U3    | ITAAC 3 | 12/30/2017                            | Inspection complete   | 11/17/2017                             | -28                                      |
| Upcoming<br>ICNs  | U3/U4 | ITAAC 4 | 01/12/2018                            | Inspection scheduled, resource assigned<br>Remaining actions:<br>Complete design review (applicable to all units) - WEC support<br>needed (per licensee available)                              | 01/19/2018                             | 22                                       |
|                   | U3/U4 | ITAAC 5 | 01/30/2018                            | Inspection complete   | 09/01/2016                             | -501                                     |
|                   | U3    | ITAAC 6 | 01/30/2018                            | Required component for inspection not available onsite until late<br>March<br><br>Remaining actions:<br>Inspect delivered component<br>Review deviations from design<br>Independent measurement | 03/23/2018                             | 67                                       |
|                   | U4    | ITAAC 7 | 02/12/2018                            | Inspection scheduled, remaining actions:<br>Review final PCD  | 02/12/2018                             | 15                                       |
|                   | U3/U4 | ITAAC 8 | 02/16/2018                            | Rll Inspection resource unavailable until mid-March. Remaining<br>actions:<br>Review design documents<br>Inspect licensee acceptance<br>Field walkdown  | 03/18/2018                             | 45                                       |

\*Data on this slide is for demonstration  
purposes only

# Inspection Issues Accountability Metric

| INDICATOR                                     | Green Status | Yellow Status | Red Status | All Items                    |
|---|--------------|---------------|------------|------------------------------|
| (A.1) ITAAC Finding                           | 4            | 1             | 1          | <a href="#">CIPIMS List</a>  |
| (A.2) Escalated Enforcement                   | 0            | 0             | 0          | <a href="#">CIPIMS List</a>  |
| (B.1) Technical Assistance Requests (TARs)    | 2            | 0             | 1          | <a href="#">TAR Database</a> |
| (B.2) Unresolved Items (URIs)                 | 1            | 1             | 0          | <a href="#">CIPIMS List</a>  |
| (C.1) Allegations/Petitions                   | 0            | 0             | 0          | See AMS for details          |
| (C.2) ITAAC Post-Closure Notifications (IPCN) | 0            | 0             | 0          | <a href="#">VOICES List</a>  |

\*Data on this slide is for demonstration purposes only

# Inspection Issues Accountability Basis

| Metrics Bases Document  | METRIC COLOR EQUIVALENTS   |   |  |
|---|--|---|--|
|   | GREEN  | YELLOW  | RED  |
| (A.1) For ITAAC findings, corrective actions have completed by licensee and NRC follow up inspection scheduled  | CA complete and inspection scheduled 1 quarter after exit          | CA complete and inspection scheduled 2 quarters after exit      | CA complete and inspection scheduled 3 quarters after exit       |
| (A.2) From exit meeting date. Initial significance identified and decision made if technical aspect can be separated (and corrected) from enforcement process | Separation decision made within 30 days of identification of an AV | Separation decision made within 60 days                         | Separation decision made within 90 days                          |
| (B.1) TAR response received and addresses technical issue   | TAR complete before due date                                       | TAR open from 0-2 weeks after due date                          | TAR open 2+ weeks after due date                                 |
| (B.2) URI information received and NRC follow up inspection scheduled   | Inspection scheduled 4 weeks after exit                            | Inspection scheduled 8 weeks after exit                         | Inspection scheduled 12 weeks after exit                         |
| (C.1) Allegation screening for materiality to ITAAC complete and action (RFI/Inspection) assigned if material to AC   | ITAAC Screening and ITAAC related action assigned within 2 days    | ITAAC Screening and ITAAC related action assigned within 5 days | ITAAC Screening and ITAAC related action assigned within 10 days |
| (C.2) IPCN reviewed, decision made on follow up inspection, and communicated to licensee  | Screening and action assigned within 5 days                        | Screening and action assigned within 15 days                    | Screening and action assigned within 30 days                     |

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# Inspection Input Timeliness Metric

| USNRC Unit Numb | USNRC AP1000R19 DCD ITAAC Number | Activity Name  | Start       | Finish      | Input status       | Inspector Input | BC Approval | CPM Review | Inspector      | Status |
|-----------------|----------------------------------|--|-------------|-------------|--------------------|-----------------|-------------|------------|----------------|--------|
| VOG3            | 2.1.02.05a.i                     | JE52 EQDP Review   | 16-Oct-17 A | 20-Oct-17 A | Draft              |                 | N/A         | N/A        | Andrew Lerch   |        |
| VOG4            | 2.2.01.02a                       | Containment Pipe ASME Inspection   | 06-Nov-17 A | 22-Nov-17 A | Approved           |                 |             |            | Nicole Coovert |        |
| VOG3            | 2.2.03.02a                       | Accumulator Installation Inspection  | 13-Nov-17 A | 17-Nov-17 A | Approved           |                 |             |            | Nicole Coovert |        |
| VOG3            | 2.5.02.07c                       | Safety/Non-Safety Data Communication PCD Review                                  | 06-Nov-17 A | 17-Nov-17 A | Approved           |                 |             |            | Andrew Lerch   |        |
| VOG4            | 2.5.02.07c                       | Safety/Non-Safety Data Communication PCD Review                                  | 13-Nov-17 A | 17-Nov-17 A | Approved           |                 |             |            | Andrew Lerch   |        |
| VOG3            | 3.1.00.01                        | TSC as-built inspection  | 30-Oct-17 A | 13-Nov-17 A | Approved           |                 |             |            | Chris Even     |        |
| VOG4            | 3.1.00.01                        | TSC as-built inspection  | 30-Oct-17 A | 13-Nov-17 A | Approved           |                 |             |            | Chris Even     |        |
| VOG3            | 3.1.00.05                        | TSC/OSC Location Inspection  | 06-Nov-17 A | 13-Nov-17 A | Approved           |                 |             |            | Chris Even     |        |
| VOG4            | 3.1.00.05                        | TSC/OSC Location Inspection  | 06-Nov-17 A | 13-Nov-17 A | Approved           |                 |             |            | Chris Even     |        |
| VOG0            | N/A                              | U3/U4 URI 2017002-02   | 10-Oct-17 A | 20-Oct-17 A | Approved           |                 |             |            | Andrew Lerch   |        |
| VOG3            | 3.3.00.02a.i.c                   | Non-Rad Area Aux Bldg. Wall Rebar Installation Elev. 100'-0" to 117'-6" Sample 1 | 28-Aug-17 A | 30-Nov-17 A | Ready for Approval |                 |             | N/A        | Nicole Coovert |        |
| VOG3            | 3.3.00.02a.i.d                   | Rad Area Aux Bldg. Wall Rebar Installation Elev. 100'-0" to 117'-6" Sample 2     | 30-Oct-17 A | 30-Nov-17 A | Ready for Approval |                 |             | N/A        | Nicole Coovert |        |
| VOG4            | 3.3.00.02a.i.d                   | Rad Area Aux Bldg Floor Rebar Installation Elev. 82'-6"                          | 28-Aug-17 A | 30-Nov-17 A | Draft              |                 | N/A         | N/A        | Nicole Coovert |        |

\*Data on this slide is for demonstration purposes only



Questions?



United States Nuclear Regulatory Commission

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*Protecting People and the Environment*

10 CFR 52.103(g)  
Finding

# Focused Finding

- The Commission delegated the 52.103(g) finding to the staff (SRM 13-0033)
- The 52.103(g) finding is based solely on ITAAC
- The licensee must meet additional requirements to enter operations, including fuel load, specifically:
  - License Conditions
  - Technical Specifications
  - Order, if applicable

# To Make the 52.103(g) Finding

- All ITA have been performed and all AC in Appendix C of the COL are met
- For each ITAAC, an ITAAC Closure Notification, and if required ITAAC Post-Closure Notification, has been accepted
- ITAAC baseline inspection program, reactive and supplemental ITAAC inspections are completed
- All ITAAC Findings and Notices of Non-Conformances (NONs) material to the ITAAC's AC are closed
- Open allegations have been evaluated



# Interim Operations

- The Commission's adequate protection determination shall precede issuing the 52.103(g) finding
- The Commission's determination of adequate protection is required for all admitted ITAAC contentions, or interim operation (including fuel load) is not allowed
- An Order authorizing interim operations pursuant to 52.103(c), with any terms or conditions imposed by the Commission in its adequate protection determination, shall be issued concurrent with the 52.103(g) finding
- The 40-year term of the already-issued combined license commences when the 52.103(g) finding is made

# ITAAC Maintenance

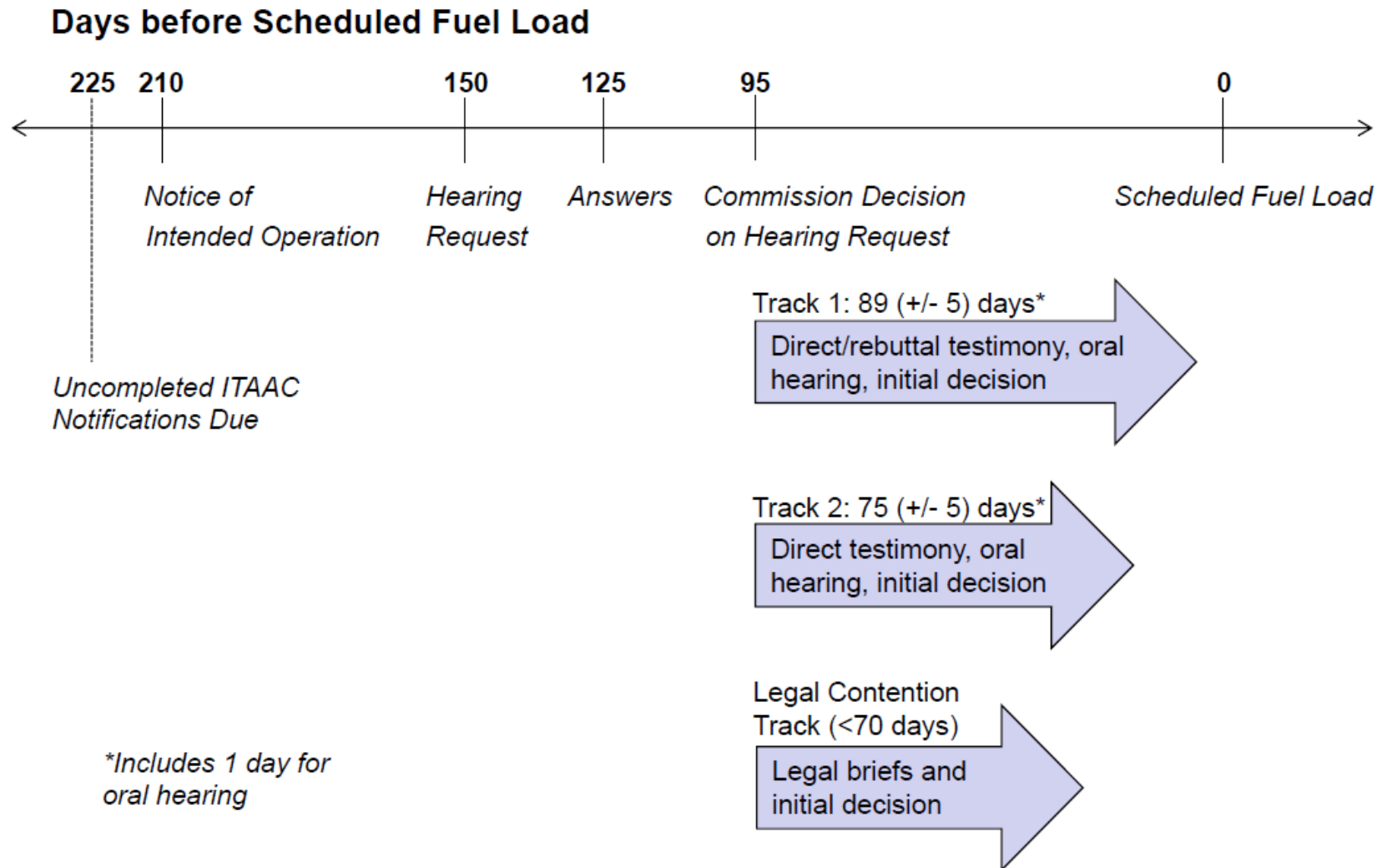
After the “All ITAAC Complete” notification is submitted pursuant to 52.99(c)(4) the headquarters operation officer (HOO) should be notified within 24 hours of discovery that an ITAAC maintenance threshold has been exceeded (RG – 1.215 & NEI 08-01)

# 52.103(f)

- A petition to modify the terms and conditions of the license submitted per 52.103(f) is processed as a request for action in accordance with 2.206
- 52.103(f) provides that before the licensed activity allegedly affected by the petition commences (fuel loading, low power testing, etc.) the Commission shall determine whether any immediate action is required
- Review of the petition needs to be coordinated with the 52.103(g) decision
- If the petition is granted, an appropriate order will be issued (SECY 17-0007)
- Fuel loading and operation under the COL will not be affected by the granting of the petition unless the order is made immediately effective

# ITAAC Hearing Process

# ITAAC Hearing Timeline



# Events Leading to the Commission's Decision on the Hearing Request

| Days Before Scheduled Fuel Load (SFL)   | Event (events with required staff actions are italicized)  |
|---|--|
| 420                                     | <i>Publish Pre-Clearance Background Check Federal Register Notice (FRN)</i>  |
| 400                                     | <i>Begin Pre-Clearance Background Check, As Requested</i>  |
| 390                                     | <i>Public Meetings on Upcoming ITAAC Proceeding</i>  |
| 285-210                                 | <i>Publish FRN of Intended Operation. Publication date depends on submission date of uncompleted ITAAC notifications.</i>                    |
| 275-200<br>(10 days after notice)       | <i>Evaluate Requests for Access to SUNSI and/or SGI. Such requests must be submitted within 10 days of the notice of intended operation.</i> |
| 225-150<br>(60 days after notice)       | Hearing Requests Due   |
| 200-125 (25 days after hearing request) | <i>Licensee and Staff File Answers to Hearing Request</i>  |
| 170-95 (30 days after answers)          | Commission Decision on Hearing Request   |

# Events If Hearing Request Is Granted

The list below is based on Track 1 since it's the most likely to be employed

| Days After Decision on Hearing Request | Event (events with required staff actions are italicized)   |
|--|---|
| 7                                      | <i>Prehearing Conference</i>  |
| 10                                     | Scheduling Order  |
| 15                                     | <ul style="list-style-type: none"> <li>• <i>Disclosures of Documents Relevant to Admitted Contentions</i></li> <li>• <i>Identification of Witnesses</i></li> <li>• <i>NRC Staff Informs the Presiding Officer and Parties of Whether the Staff Will Participate as a Party</i></li> </ul> |
| 30 (+/- 5)                             | <i>Pre-filed Initial Testimony</i>  |
| 44 (+/- 5)                             | <i>Pre-filed Rebuttal Testimony</i>   |
| 51 (+/- 5)                             | <ul style="list-style-type: none"> <li>• <i>Proposed Questions for the Presiding Officer to Ask of the Other Parties' Witnesses</i></li> <li>• Motions for Cross-Examination/Cross-Examination Plans</li> </ul>   |
| 56 (+/- 5)                             | <i>Answers to Motions for Cross-Examination</i>   |
| 59 (+/- 5)                             | <i>Oral Hearing</i>   |
| 66 (+/- 5)                             | <i>Joint Transcript Corrections</i>   |
| 74 (+/- 5)                             | <i>Proposed Findings of Fact and Conclusions of Law</i>   |
| 89 (+/- 5)                             | Initial Decision  |
| 114 (+/- 5)                            | <i>Petition for Review of Initial Decision</i>  |
| 139 (+/- 5)                            | <i>Answer to Petition for Review</i>  |

# Events for Filings Submitted After the Deadline for Hearing Requests

| Days After New Information | Event (events with required staff actions are italicized)                                 |
|----------------------------|---|
| 20                         | Hearing Request, New or Amended Contention, or Claim of Incompleteness After the Deadline |
| 34                         | <i>Licensee and Staff Answers Due</i>   |
| 64                         | Presiding Officer Decision on Filing After the Deadline                                   |

A hearing request or new or amended contention after the original deadline for hearing requests must show good cause for filing after the deadline and must be filed within 20 days of the new information providing the basis for the contention. Similarly, a claim of incompleteness submitted after the deadline for hearing requests must be filed within 20 days of the availability of the ITAAC notification giving rise to the claim



NRO-REG-XXX

# Determination Process for the 52.103(g) Finding

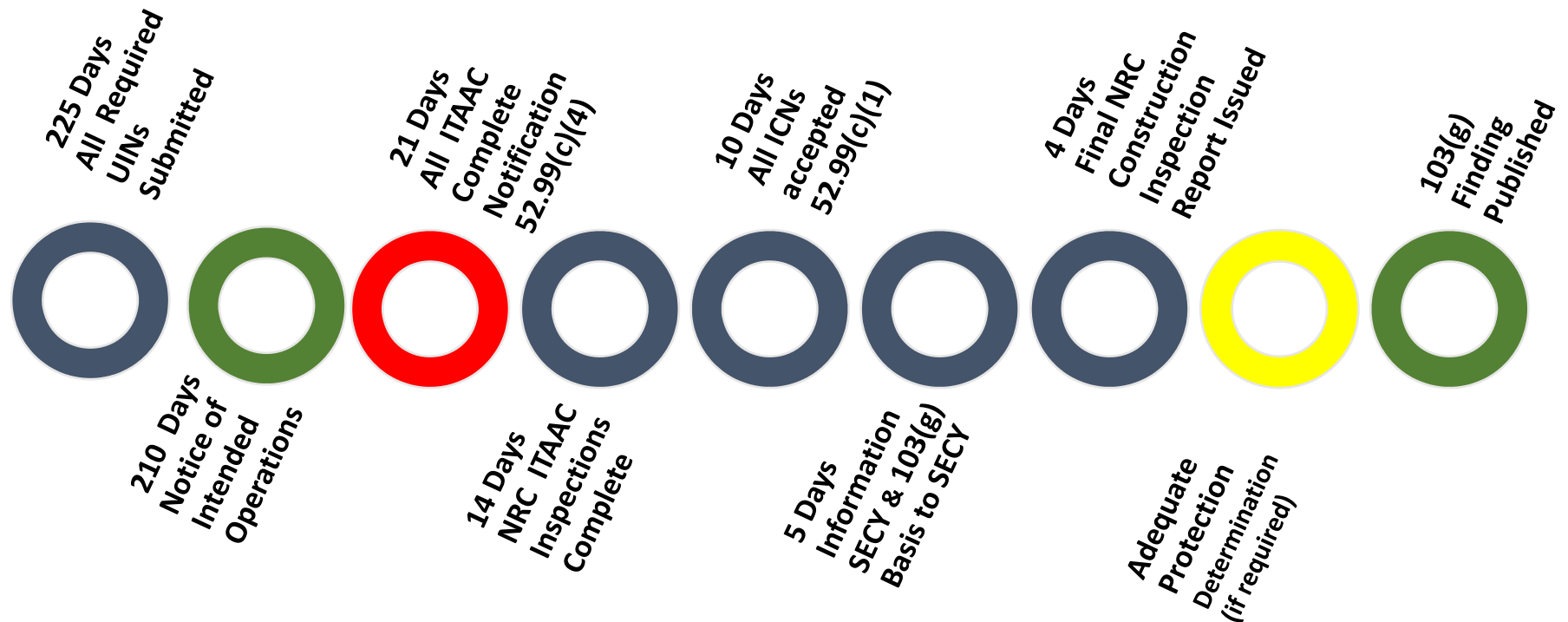
# NRO Office Instruction

- Guides staff on conduct and documentation for its 52.103(g) finding that a licensee met all acceptance criteria in Appendix C of the combined license
- Provides guidance to support interim operation pursuant to 52.103(c), if required
- Issued by Fall 2018

# 52.103(g) Timeline

*Days prior to scheduled fuel load are for demonstration purpose only*

*\*Official schedule dates will be finalized during approval of the office instruction*



# DELIVERABLES

- 52.103(g) Information SECY
  - 52.103(g) Basis Document
- 52.103(g) Federal Register Notice

Approved templates provide the scope, format, and background information reducing the time to prepare and concur on the final documents

# RESPONSIBLE ORGANIZATIONS AND ASSOCIATED ACTIVITIES

| OI Section | Activity  | Lead Organization  | Support Organization   | Begins (including preparation)   | Ends |
|------------|---|--------------------|--|--|------|
| 3.1.       | ITAAC Organization Maintains Cognizance of License Amendments, Audits VOICES for COL Agreement                | ITAAC Organization | Licensing Organization, HQ Inspection Organization                         | Ongoing Specific Checks 7-14 days before Issuing the Notice of Intended Ops and the 103(g) Finding | SFL  |
| 3.2        | ITAAC Organization Maintains Cognizance of 52.99(c) ITAAC Notification Submittals                             | ITAAC Organization | Licensing Organization, Region II  | Ongoing Specific Checks 7-14 days before Issuing the Notice of Intended Ops and the 103(g) Finding | SFL  |
| 3.3        | Region II Construction Organization Maintains Cognizance of the Status of the Construction Inspection Program | Region II          | Host Region, NSIR, NRO Technical Organizations, HQ Inspection Organization | Ongoing Specific Check 7-14 days before Issuing the 103(g) Finding                                 | SFL  |

## RESPONSIBLE ORGANIZATIONS AND ASSOCIATED ACTIVITIES

| OI Section | Activity   | Lead Organization                        | Support Organization   | Begins (including preparation) | Ends                               |
|------------|--|--|--|--------------------------------|------------------------------------|
| 3.4        | Prepare ITAAC Closure Notification Inputs for Info SECY & 103(g) Basis Document  | HQs ITAAC Organization                   | Licensing Organization, Region II Construction Organization, NSIR, NRO Technical Organizations | 270 Days before SFL            | Input Submitted 90 days before SFL |
| 3.5        | Prepare Construction Inspection Program Inputs for the 103(g) Basis Document     | Region II Construction Organization      | NSIR, NRO Technical Organizations  | 270 Days before SFL            | Input Submitted 90 days before SFL |
| 3.6        | Prepare Vendor Inspection Inputs for the 103(g) Basis Document                   | HQs Vendor Inspection Organization       | Region II Construction Organization, NRO Technical Organizations                               | 270 Days before SFL            | Input Submitted 90 days before SFL |
| 3.7        | Prepare Emergency Preparedness and Security Inputs for the 103(g) Basis Document | HQs NSIR Organizations                   | Region II Construction Organization  | 270 Days before SFL            | Input Submitted 90 days before SFL |
| 3.8        | Prepare Transition to Operation Input for 103(g) Basis Document                  | HQs Construction Inspection Organization | Licensing Organization, Region II Construction Organization, NSIR, NRO Technical Organizations | 270 Days before SFL            | Input Submitted 90 days before SFL |

# RESPONSIBLE ORGANIZATIONS AND ASSOCIATED ACTIVITIES

| OI Section | Activity   | Lead Organization  | Support Organization  | Begins (including preparation) | Ends                               |
|------------|--|--|---|--------------------------------|------------------------------------|
| 3.9        | Prepare Late Filed Allegation Input for the 103(g) Basis Document  | Office of Enforcement  | Licensing Organization, Region II Construction Organization, Host Region, NSIR, NRO & NRR Technical Organizations                 | 270 Days before SFL            | Input Submitted 90 days before SFL |
| 3.10       | Prepare First Draft of Information SECY and 103(g) Basis Document for Concurrence                              | HQs ITAAC Organization   | Licensing Organization, Region II Construction Organization, Host Region, NSIR, OE, NRO NRR Organizations HQs Vendor Organization | 90 days before SFL             | 70 days before SFL                 |
| 3.10       | Obtain Required Concurrences on Draft Info SECY & 103(g) Basis Document  | Licensing Organization   | HQs ITAAC Organization, Region II Construction Organization, NSIR, OE   | 65 days before SFL             | 30 days before SFL                 |
| 3.11       | Prepare Final Info SECY Paper and 103(g) Basis Document. Verify ICN and Inspection Data (see steps 3.1 – 3.3). | HQs ITAAC Organization and Region II Construction Organization | Licensing Organization, Region II Construction Organization, Host Region, NSIR, OE, NRO NRR Organizations HQs Vendor Organization | 14 days before SFL             | 9 days before SFL                  |

## RESPONSIBLE ORGANIZATIONS AND ASSOCIATED ACTIVITIES

| OI Section | Activity   | Lead Organization      | Support Organization | Begins (including preparation) | Ends                               |
|------------|--|------------------------|----------------------|--------------------------------|------------------------------------|
| 3.11       | Update ITAAC Closure Notification Inputs                         | HQs ITAAC Organization |                      | 14 Days before SFL             | Input Submitted 11 days before SFL |
| 3.11       | Update Construction Inspection Program Inputs                    | Region II Construction |                      | 14 Days before SFL             | Input Submitted 11 days before SFL |
| 3.11       | Update Vendor Inspection Inputs (Not Expected)                   | HQs Vendor Inspection  |                      | 14 Days before SFL             | Input Submitted 11 days before SFL |
| 3.11       | Update Emergency Preparedness and Security Inputs (Not Expected) | HQs NSIR Organizations |                      | 14 Days before SFL             | Input Submitted 11 days before SFL |
| 3.11       | Update Transition to Operation Input (Not Expected)              | HQs CIP                |                      | 14 Days before SFL             | Input Submitted 11 days before SFL |
| 3.11       | Update Late Filled Allegation Input                              | HQs OE                 |                      | 14 Days before SFL             | Input Submitted 11 days before SFL |



# RESPONSIBLE ORGANIZATIONS AND ASSOCIATED ACTIVITIES

| OI Section | Activity  | Lead Organization      | Support Organization  | Begins (including preparation) | Ends              |
|------------|---|------------------------|---|--------------------------------|-------------------|
| 3.11       | Obtain Required Concurrences on Final Info SECY & 103(g) Basis Document | Licensing Organization | HQs ITAAC Organization, Region II Construction Organization, NSIR, OE | 8 days before SFL              | 5 days before SFL |
| 3.11       | Provide Final Info SECY & 103(g) Basis Document to SECY                 | Licensing Organization |   | 5 days before SFL              |                   |
|            | Commission Adequate Protection Determination (if required)              |                        |   |                                |                   |
|            | Publish 103(g) Finding and if required Order for Interim Operations     |                        |   |                                |                   |



## Public Comments



United States Nuclear Regulatory Commission

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*Protecting People and the Environment*

Summary  
and  
Closing Remarks