Part 52 Construction Inspection Program and ITAAC Closure Overview

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Objectives of this presentation

- Introduce and discuss the components of the NRC's Construction Inspection Program, and how they work together
- Describe how the NRC's Construction Inspection Program supports the oversight and licensing process during construction
- Discuss roles and responsibilities

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Overview

- Roles and Responsibilities
- Part 52 Overview and Licensing
- Construction Inspection Program
- Construction Reactor Oversight Process (cROP)
- ITAAC Closure Verification
- 10 CFR 52.103
- ConE

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Roles and Responsibilities

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Roles and Responsibilities

Areas of Inspection Responsibilities

RII -- Center for Construction Inspection	HQ -- Division of Construction Inspection	HQ -- Division of New Reactor Licensing
Implement Enforcement and Assessment	Construction and ITAAC Operations Engineers	Project Manager of each site
Construction Inspectors	ITAAC closure verification	Licensing activities
On-site inspection activities	Vendor inspections Technical assistance	Communications with all stakeholders
Informal communications with Licensee	Enforcement and Assessment	

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Part 52 Overview and Licensing

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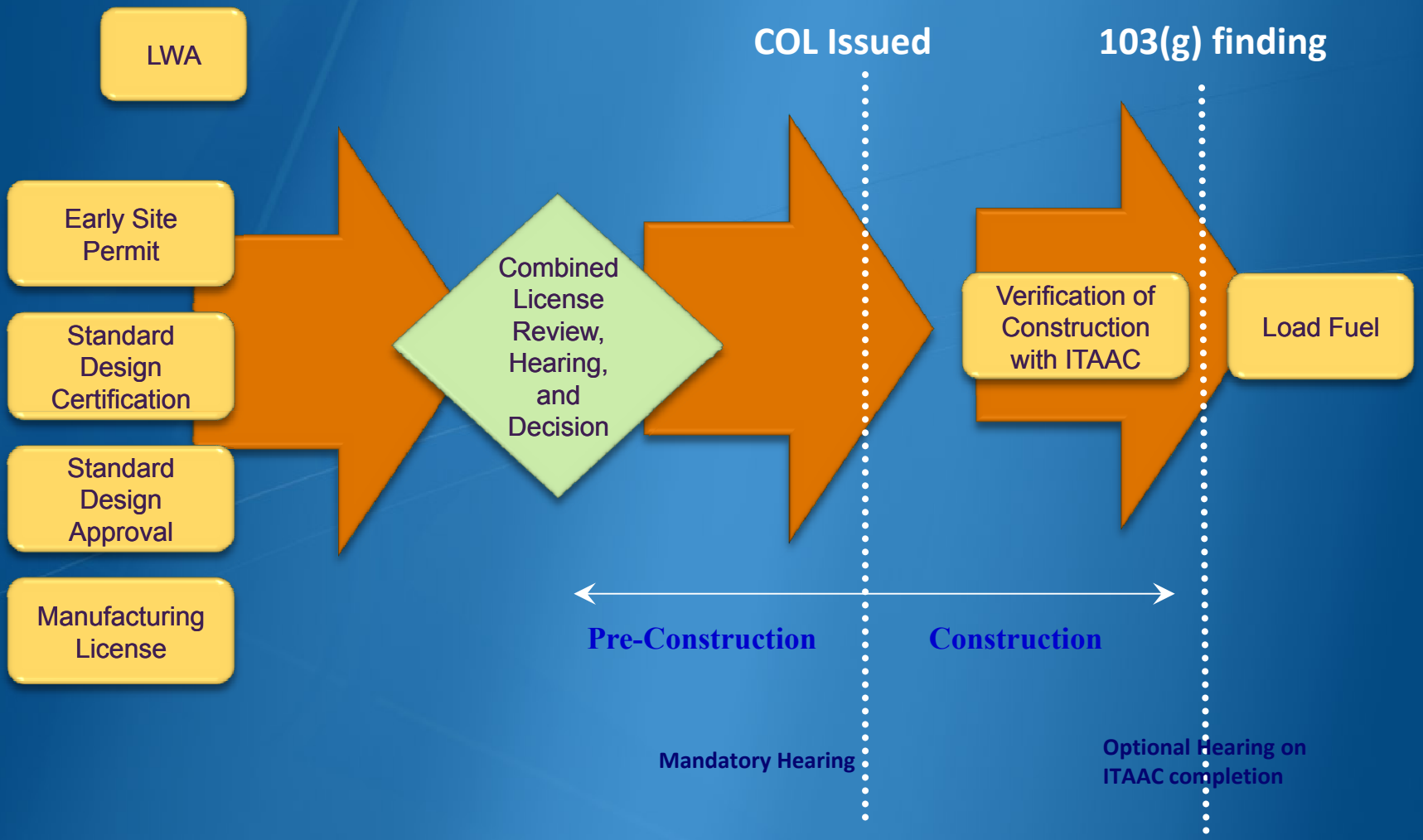
Part 52 - Fitting the Pieces Together



License Amendments

- Changes to the plant's licensing basis require a license amendment and sometimes an exemption
- License Amendment Process
  - Work planning
  - Public notification
  - Safety evaluation
  - Review and concurrence
  - Amendment preparation & issue

Changes During Construction (CdC)

Preliminary Amendment Request (PAR) – an elective precursor to the license amendment process

- Licensee can request a notification that NRC has no objection to the licensee installing and testing the proposed changed design feature pending NRC's review of the LAR
- Licensee is proceeding at their risk
- LAR must be submitted prior to NRC responding to the PAR

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Construction Inspection Program

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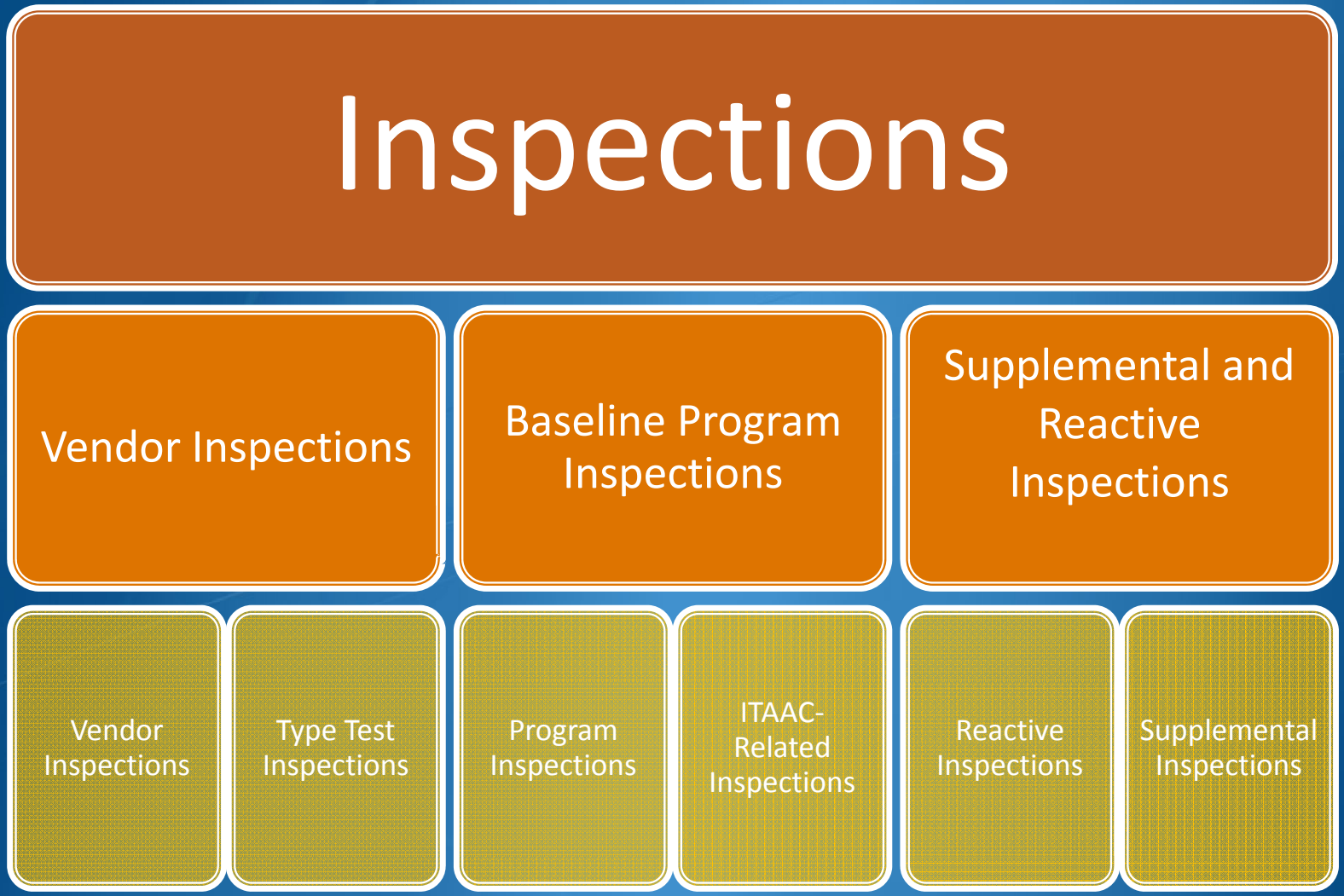
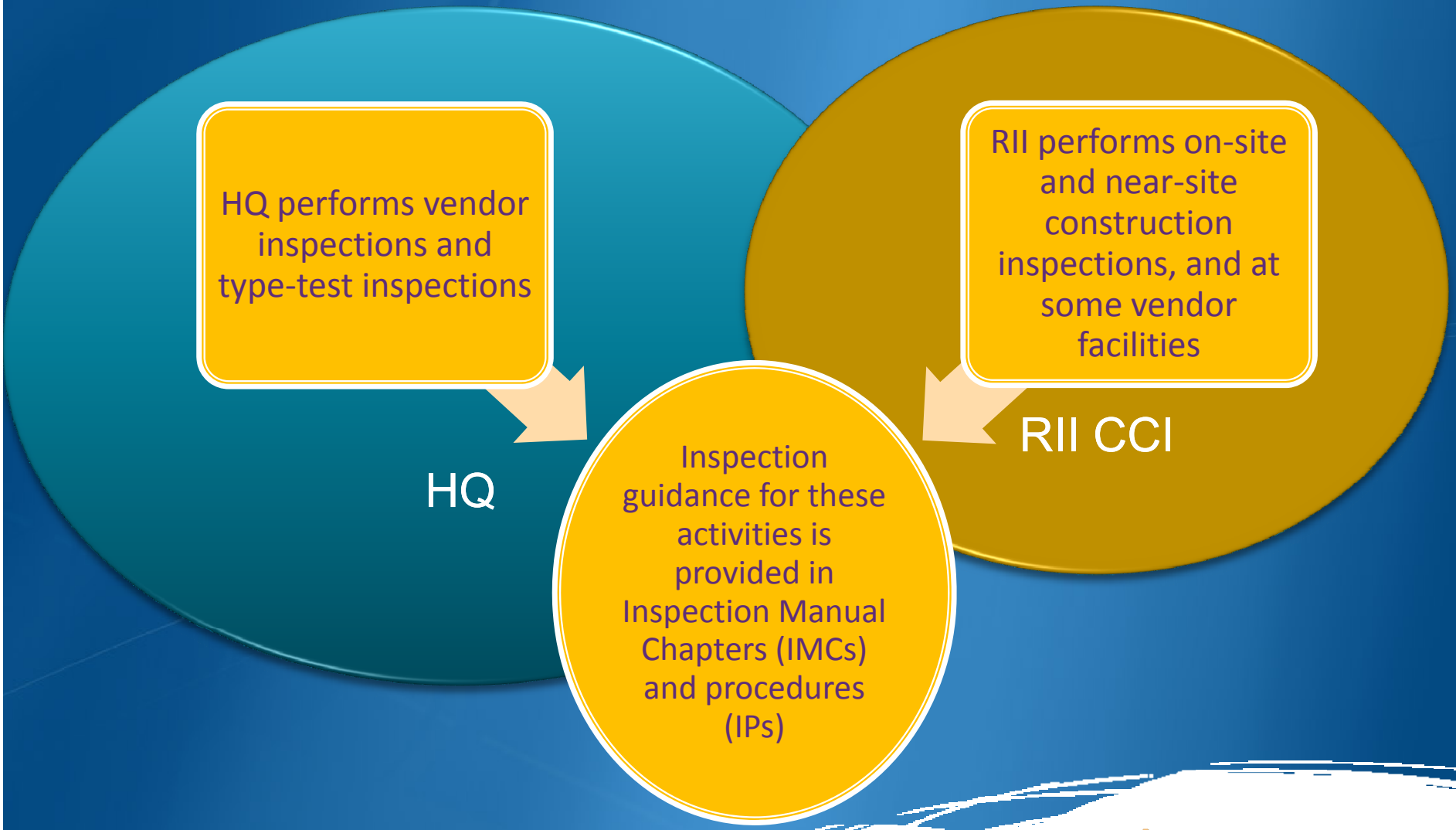
Construction Inspection Program



Conducting Inspections



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Construction Inspection Program

- Verify Vendor's implementation of design translation, Quality Assurance, corrective actions and reporting Programs
- ITAAC observations that can be used for future ITAAC closure

Vendor Inspections

IMC 2507

- Verify construction processes and operational readiness
- Construction Program Inspections
- Operational Program Inspections

Construction and Operational Program Inspections

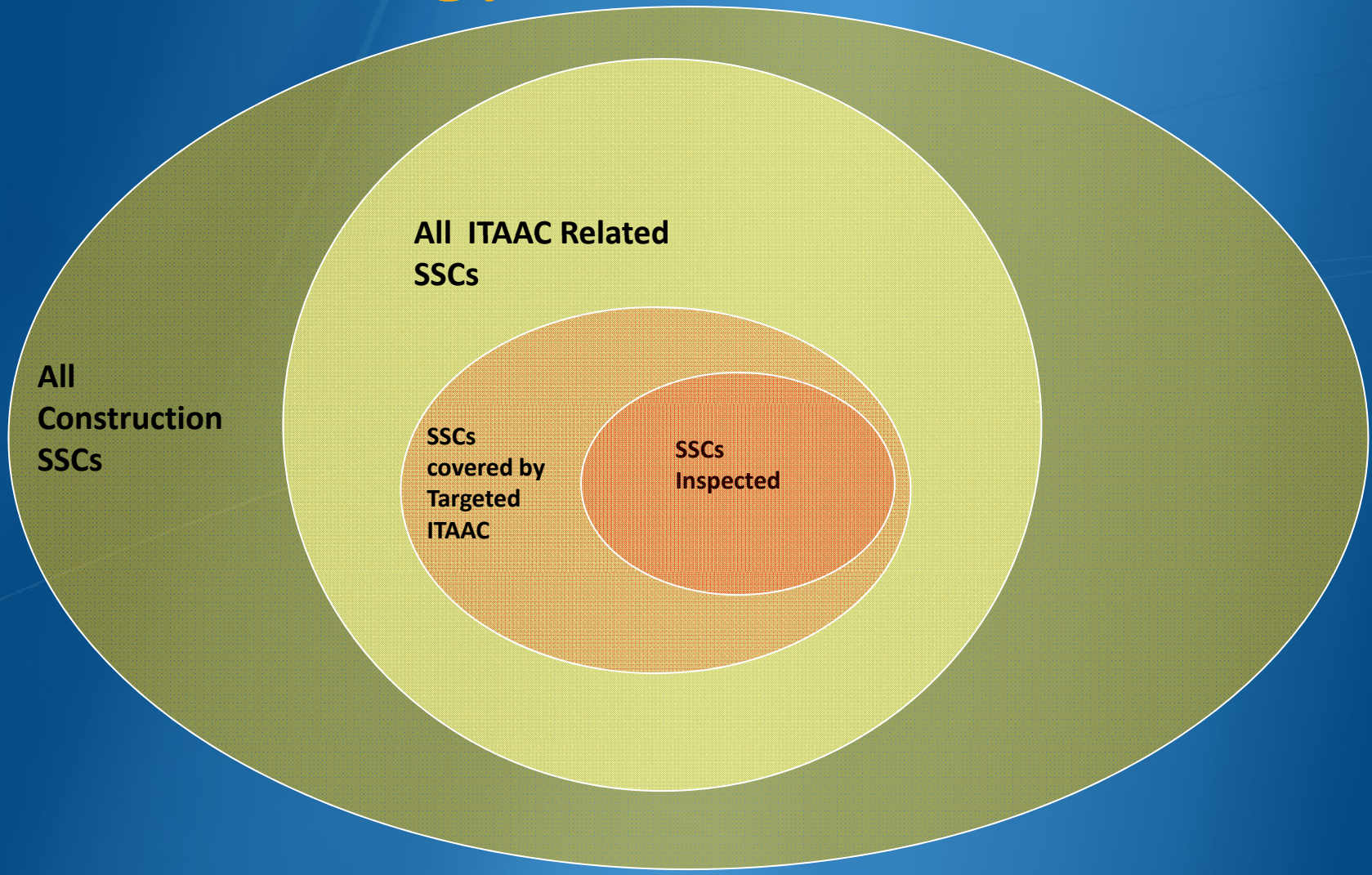
IMC 2504

- Verify plant is built in accordance with the license
- The inspection program samples ITAAC of interest

ITAAC Inspections

IMC 2503

ITAAC Inspection Sample Methodology



ITAAC Sampling Methodology

- Licensees perform all ITAAC in their COL
- NRC inspects a sample of ITAAC called “targeted ITAAC”
- Inspections are conducted on SSCs and activities associated with targeted ITAAC on a “sample of a sample” approach
- Targeted ITAAC
  - Prioritization process presented in SECY-07-0047
  - Represents most significant and valuable to inspect ITAAC
  - Approximately 40% of DC ITAAC are targeted
  - 100% Emergency Preparedness and Security ITAAC inspected

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Construction Inspection Program Information Management System

Database implemented within NRC Network

Will support vendor inspections and ITAAC closure (work in progress)

CIPIMS

Integrated inspection planning, documenting, tracking and reporting of ITAAC and programmatic inspection status

Revision 2.0 developed with substantial inspector involvement and detailed interoffice business process maps

Construction Reactor Oversight Process (cROP)

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Construction Reactor Oversight Process (cROP)

- Overview and Regulatory Framework
- cROP Pilot Program
- Enforcement and Assessment Programs

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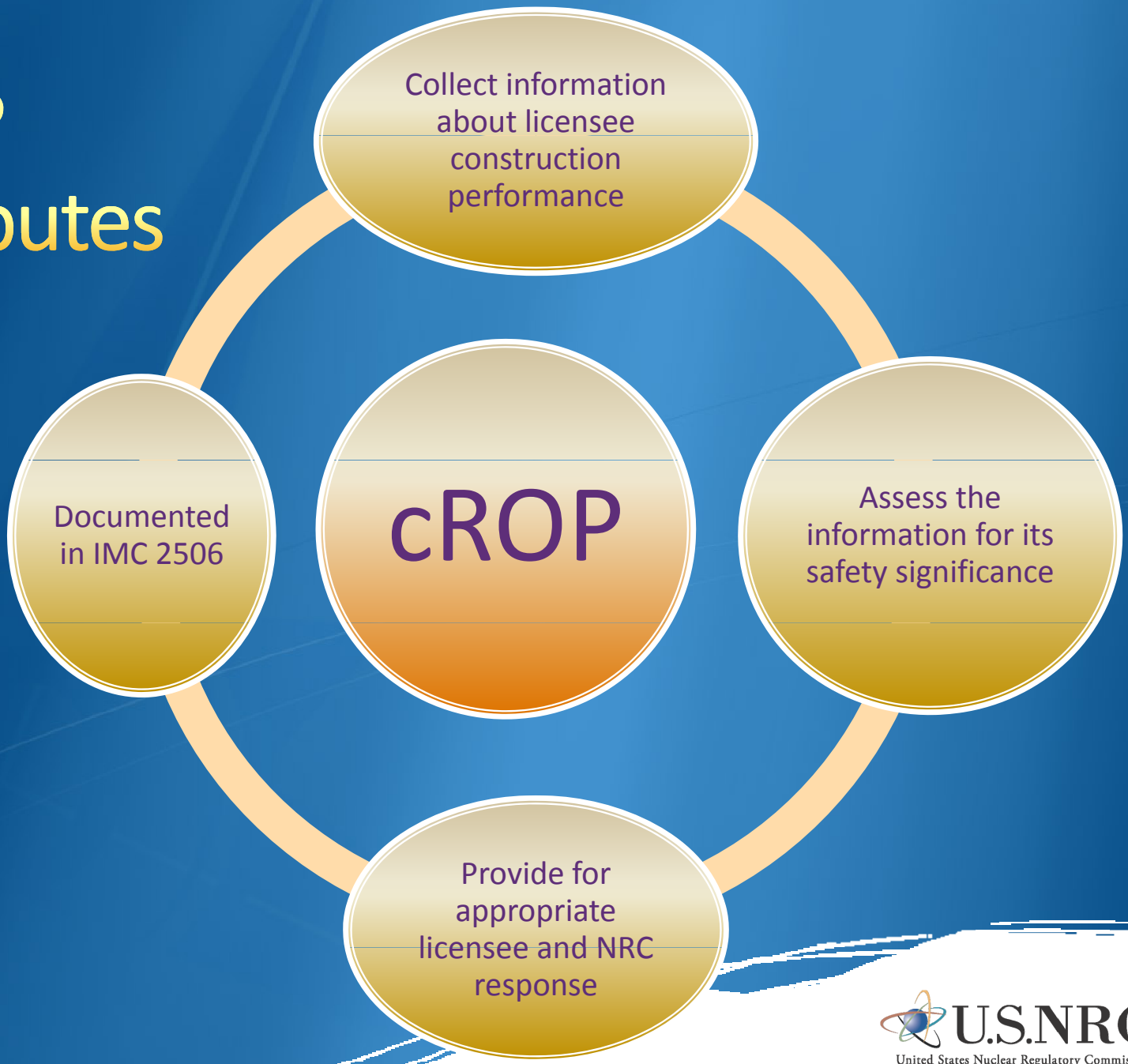
cROP Attributes



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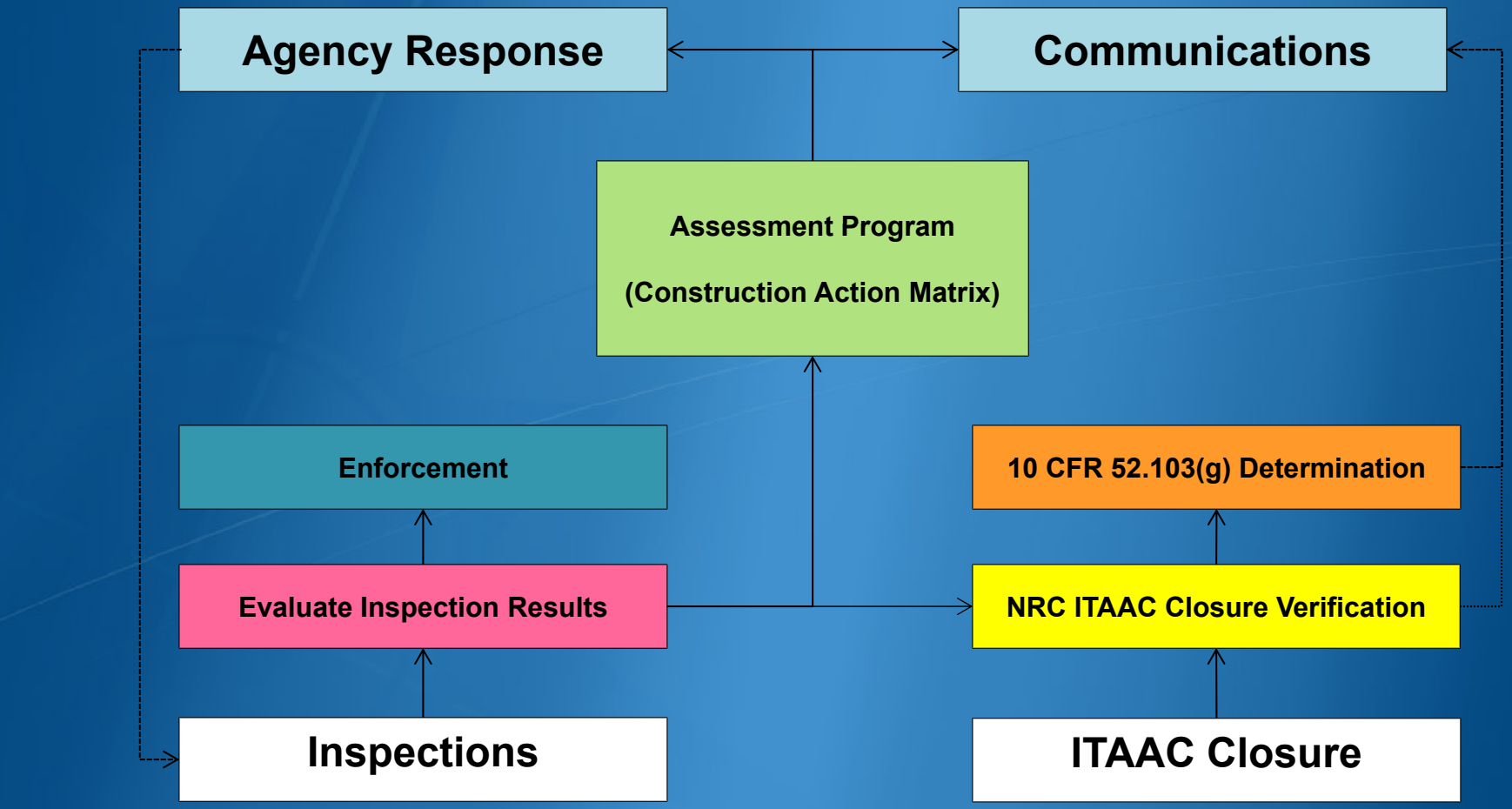
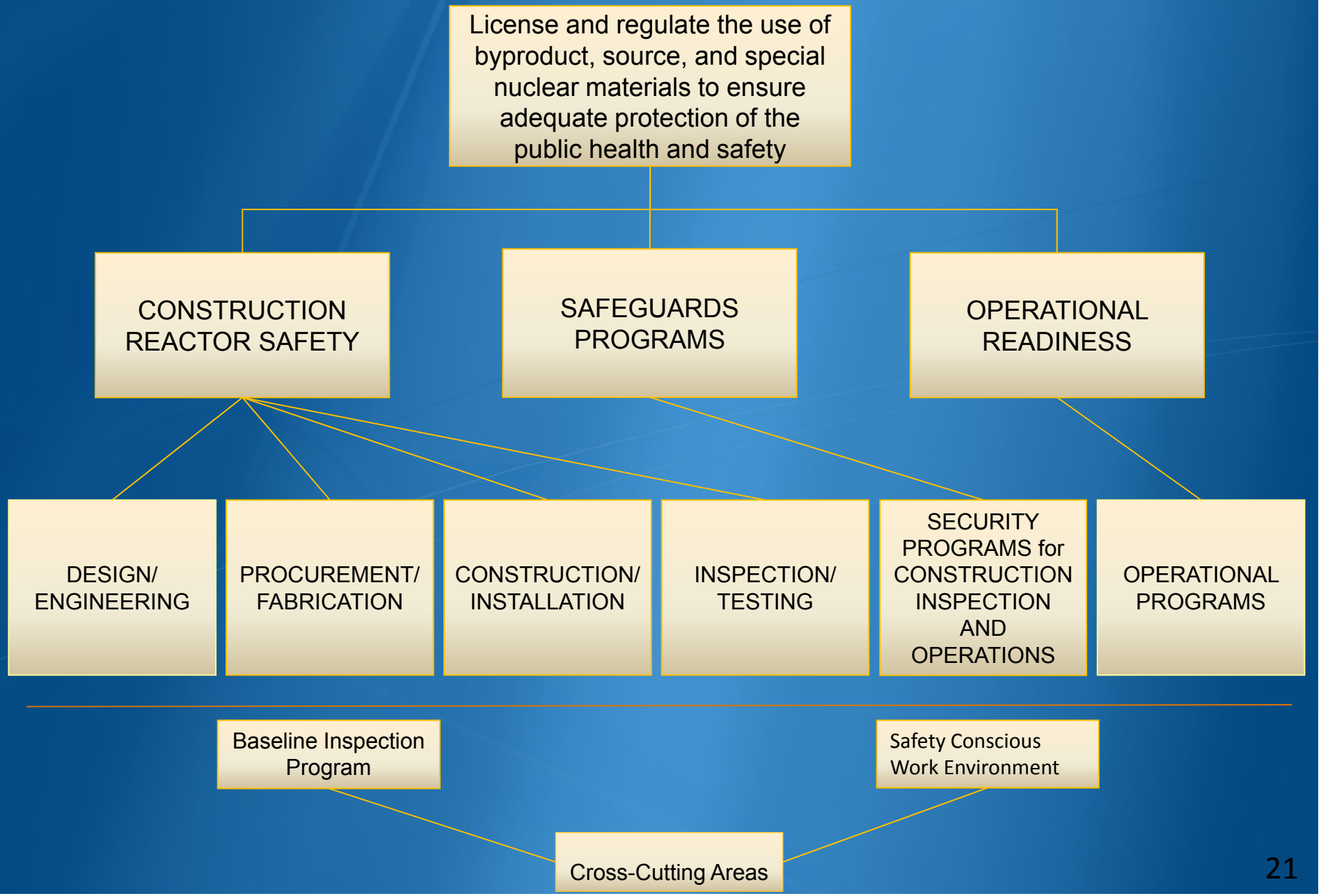
cROP Process Overview



Performance Results Across All Areas Of Construction

cROP Regulatory Framework



cROP Pilot Program

- One year pilot began at Vogtle Units 3 and 4 on January 1, 2012; will begin at Summer Units 2 and 3 once the COL is issued
- The staff is testing the construction regulatory framework, inspection finding screening process, the construction significance determination process, and a new enforcement approach
- The framework, finding screening process, SDP, and enforcement approach were all modeled after similar programs in the reactor oversight process

Enforcement & Assessment

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Enforcement Program

- Similar to ROP – For the Pilot OE issued EGM 11-006 “Enforcement Actions Related to the cROP”
- Finding is a performance deficiency that is of more than minor significance
- Construction Significance Determination Process used to determine finding significance
- Findings assigned a color of green, white, yellow or red
- Results used as input to construction action matrix
- Traditional enforcement used for certain types of findings

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Assessment Program

- The IMC 2505 Construction Assessment Program was formally implemented at Vogtle Units 3 and 4 on July 1, 2010
- Consists of continuous, quarterly and semiannual performance review
- 2 SPRs conducted to date
- Plan to conduct one more SPR for the period July 1, 2011 through December 31, 2011.
- Transitioned to an annual assessment cycle beginning on January 1, 2012
- Consists of mid-cycle and end-of-cycle reviews
- Time period aligns with the Agency Action Review M

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Assessment Program

Construction action matrix

- Significance of findings is the input to determine appropriate construction action matrix column
- Traditional enforcement results will be addressed by other regulatory tools, such as CALs, Orders, etc.
- Focuses on assessment process, where ITAAC matrix previously discussed is intended to organize ITAAC

Construction Action Matrix

		Licensee Response Column	Regulatory Response Column	Degraded Cornerstone Column	Multiple/ Repetitive Degraded Cornerstone Column	Unacceptable Performance Column
RESULTS		All Inspection Findings Green; Cornerstone Objectives Fully Met	One or Two White Findings (in different cornerstones) in a Strategic Performance Area; Cornerstone Objectives Fully Met	One Degraded Cornerstone (2 White Findings or 1 Yellow Finding) or any 3 White Findings in a Strategic Performance Area; Cornerstone Objectives Met with Moderate Degradation in Safety Performance	Repetitive Degraded Cornerstone, Multiple Degraded Cornerstones, Multiple Yellow Findings, or 1 Red Finding; Cornerstone Objectives Met with Longstanding Issues or Significant Degradation in Safety Performance	Overall Unacceptable Performance; Construction Suspended in the Area of Concern
RESPONSE	Regulatory Performance Meeting	None	BC or DD Meet with Licensee	RA/DRAC (or Designee) Meet with Senior Licensee Management.	EDO/DEDO (or Designee) meet with Senior Licensee Management	EDO/DEDO (or Designee) Meet with Senior Licensee Management
	Licensee Action	Licensee Corrective Action	Licensee Root cause Evaluation and corrective action with NRC Oversight	Licensee cumulative root cause evaluation with NRC Oversight	Licensee Performance Improvement Plan with NRC Oversight	Licensee Performance Improvement Plan / Construction Restart Plan with NRC Oversight
	NRC Inspection	Risk-Informed Baseline Inspection Program	Baseline and supplemental inspection procedure 90001	Baseline and supplemental inspection procedure 90002	Baseline and supplemental inspection procedure 90003	Baseline and Supplemental as Practicable, Plus Special Inspections per Construction Restart Checklist.
	Regulatory Actions[2]	None	Supplemental inspection only	Supplemental inspection only Plant Discussed at AARM if Conditions Met	-10 CFR 2.204 DFI -10 CFR 50.54(f) Letter - CAL/Order Plant Discussed at AARM	Order to Modify, Suspend, or Revoke Licensed Activities Plant Discussed at AARM
COMMUNICATION	Assessment Letters	BC or DD review/sign assessment report (w/ inspection plan)	DD review/sign assessment report (w/ inspection plan)	DRAC review/sign assessment report (w/ inspection plan)	RA review/sign assessment report (w/ inspection plan)	RA review/sign assessment report (w/ inspection plan)
	Annual Involvement of Public Stakeholders	Various public stakeholder options (see section 12) involving the SRI or BC	Various public stakeholder options (see section 12) involving the BC or DD	RA/DRAC (or Designee) Discuss Performance with Senior Licensee Management	EDO/DEDO (or Designee) Discuss Performance with Senior Licensee Management	EDO/DEDO (or Designee) Discuss Performance with Senior Licensee Management
	Commission Involvement	None	None	Possible Commission Meeting if Licensee Remains for one and one half years	Commission Meeting with Senior Licensee Management Within 6 mo.	Commission Meeting with Senior Licensee Management
	INCREASING SAFETY SIGNIFICANCE ---------->					

ITAAC Closure Verification

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Life of an ITAAC

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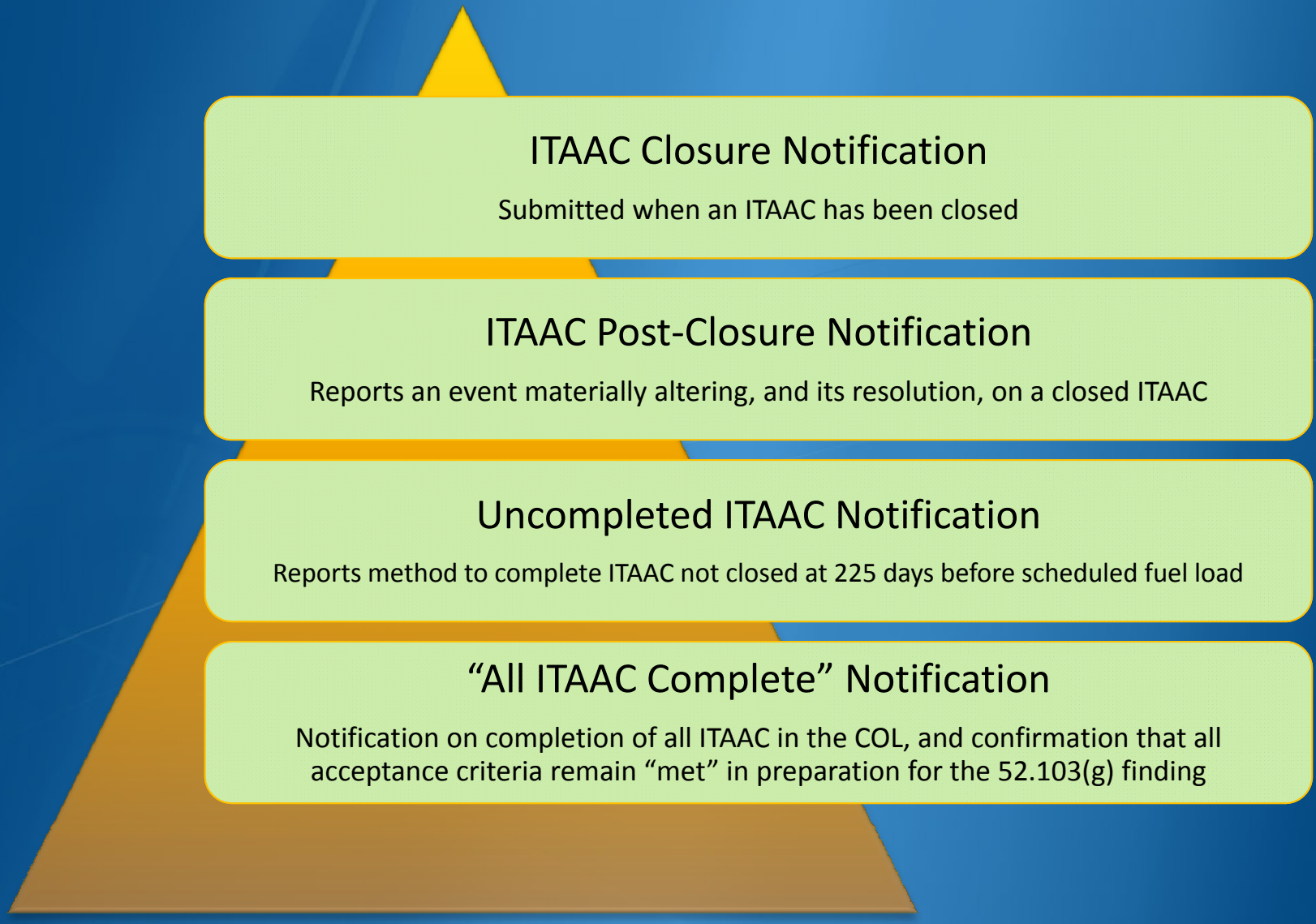
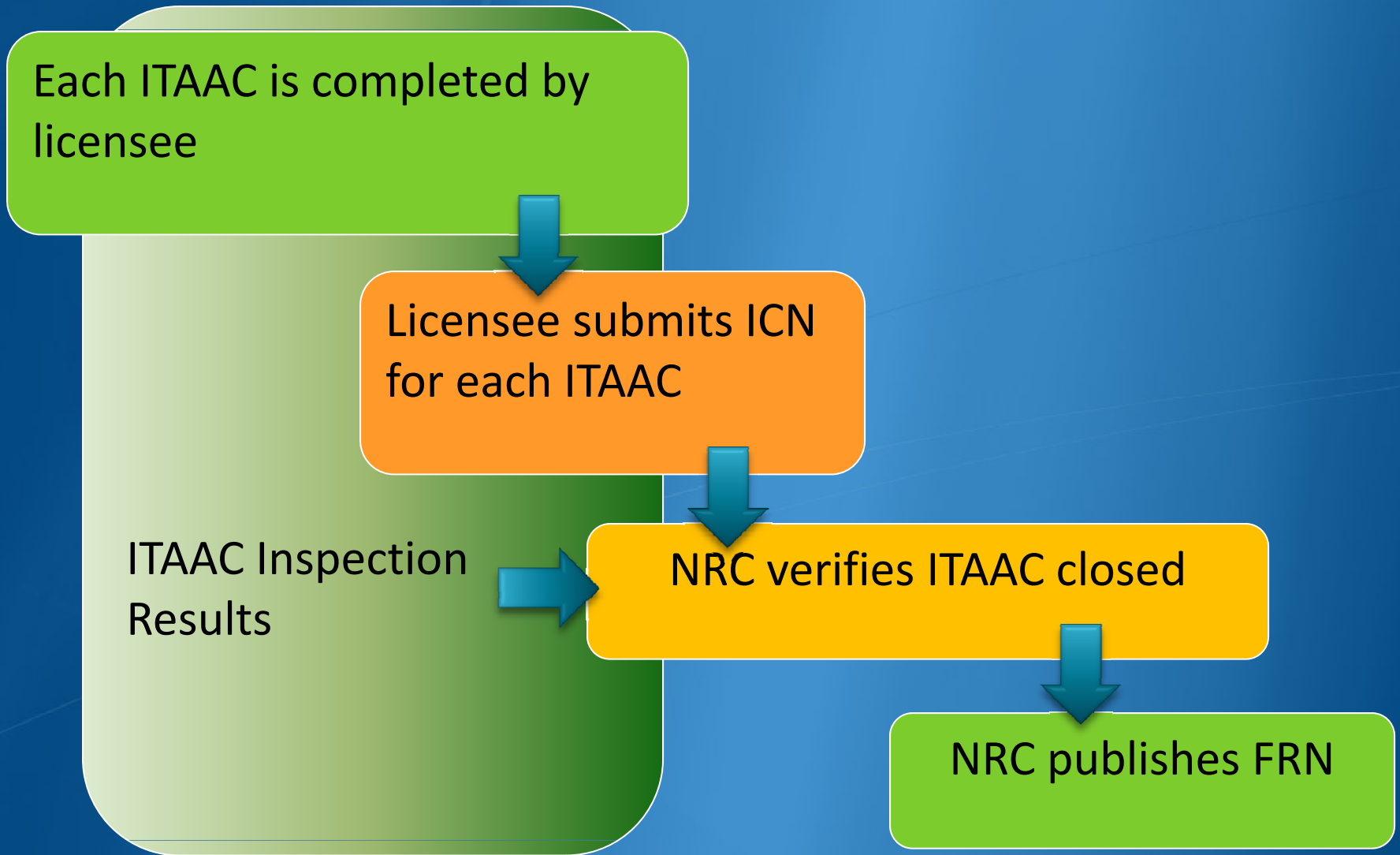
ITAAC Notifications



ITAAC Closure Verification Process



ITAAC Closure Verification Process

- A key concept is that NRC inspections will have been completed prior to receiving the ITAAC closure notifications
- The NRC closure verification process led by the Division of Construction Inspection at HQ, with input from:
  - Technical Experts
  - Field Inspectors
- 100% of closure notifications reviewed
- The ITAAC family closure strategy ensures a majority of targeted ITAAC have been completed prior to closing any non-targeted ITAAC

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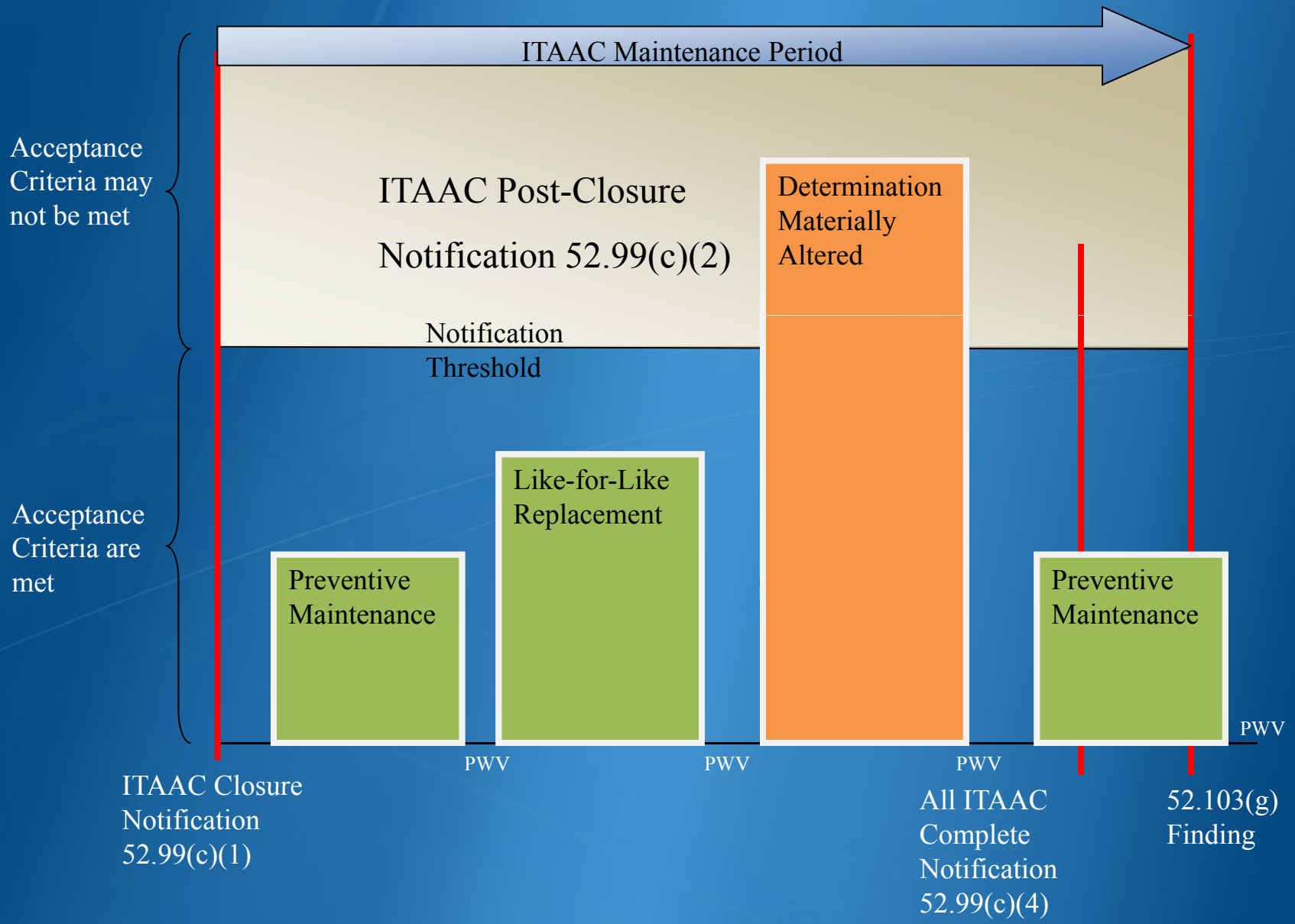
ITAAC Maintenance



10 CFR 52.103

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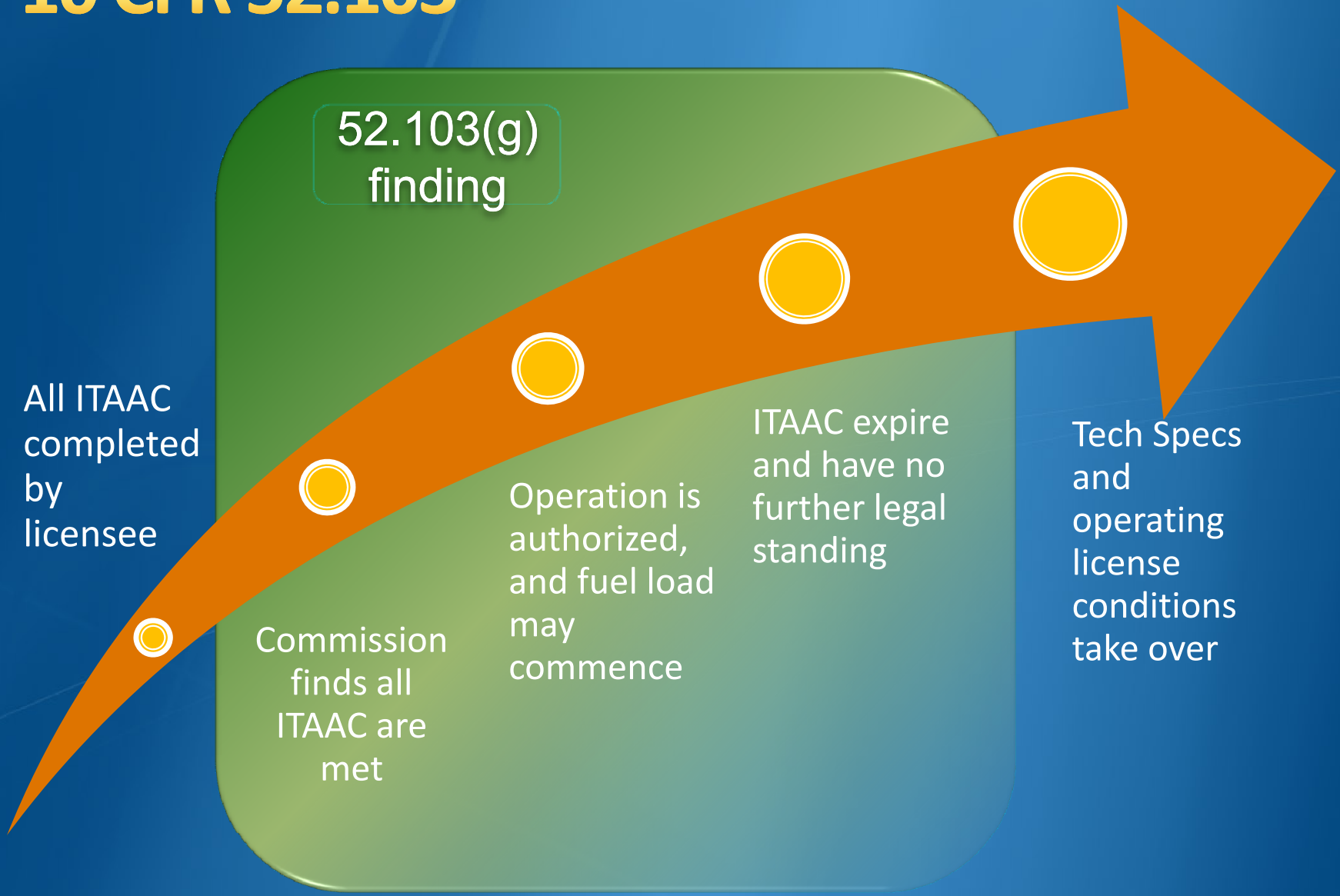
10 CFR 52.103


52.103(g) finding
All ITAAC completed by licensee
Commission finds all ITAAC are met
Operation is authorized, and fuel load may commence
ITAAC expire and have no further legal standing
Tech Specs and operating license conditions take over

Construction Experience (ConE)

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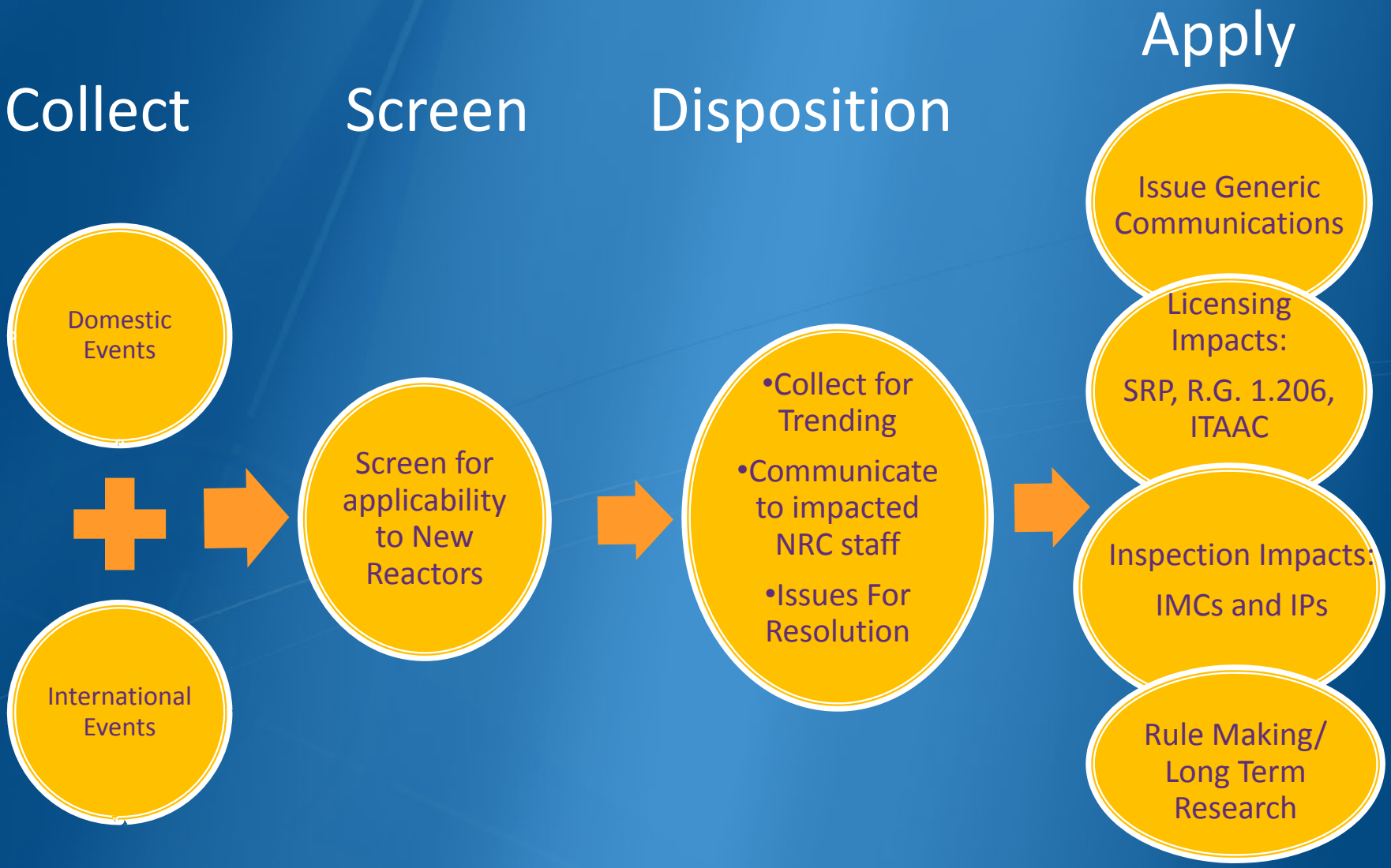
ConE


Collect
Screen
Disposition
Apply
Domestic Events
International Events
Screen for applicability to New Reactors
•Collect for Trending
•Communicate to impacted NRC staff
•Issues For Resolution
Issue Generic Communications
Licensing Impacts:
SRP, R.G. 1.206, ITAAC
Inspection Impacts:
IMCs and IPs
Rule Making/ Long Term Research

Questions?

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