



U.S. NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

Construction Reactor Oversight Process Working Group Activities

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Construction Reactor Oversight Process (cROP) Working Group

- **The staff hosted a senior level construction inspection assessment process panel on November 16, 2009, to solicit input and exchange views on issues related to the construction assessment program in a forum open to the agency's stakeholders and the public. Panel participants included senior managers from the NRC, the Nuclear Energy Institute (NEI), industry representatives, and a representative from the State of Georgia.**
- **An NRC multi-office working group was formed to develop construction assessment program options**
- **Group routinely meets internally, works closely with stakeholders, and discusses progress at scheduled public meetings**
- **Category II Public Meetings Held With NEI Working Group December 9, 2009, January 6, 2010, January 27, 2010 and March 17, 2010.**
- **Category III Public Meeting January 28, 2010.**



cROP Working Group Guiding Principles

- The objective of construction oversight is to independently evaluate licensee performance of construction activities and the effectiveness of licensee/contractor oversight and quality assurance efforts associated with construction in order to provide a sufficient basis to support the Commission determination in accordance with 10 CFR 52.103(g) that the acceptance criteria in a combined license have been met and will be operated safely.
- The cROP should include a regulatory framework consisting of strategic performance areas and associated cornerstones.
- The significance of findings should be determined using a predictable and transparent process, similar to the ROP's significance determination process (SDP).
- The construction inspection program is not limited to verifying the completion and closure of inspections, tests, analyses, and acceptance criteria (ITAAC) listed in the combined license. The NRC must also consider inspection and assessment of both construction and operational programs that are required to be developed and implemented by the licensee prior to fuel load.
- Transition from construction to operating reactor oversight is expected to occur following the Commission's finding under Title 10 of the Code of Federal Regulations (10 CFR) 52.103(g) that all ITAAC acceptance criteria are met.
- The cROP must be robust enough to continue to be relevant and viable until the ROP is ready to assume oversight responsibilities at the 10 CFR 52.103(g) finding.



cROP Working Group Guiding Principles

- The cROP structure should be kept as simple as possible. The agency should not attempt to create a process that can handle all possible scenarios, but should only design it to handle routine and expected situations. The cROP should define an appropriate process to ensure that the necessary deviations resulting from unexpected situations are documented and approved in a predictable and transparent manner.
- While the ROP uses inspection to supplement performance indicators (PIs), the cROP will consider PIs to supplement inspection where relevant.
- Similar to the ROP, the cROP and construction assessment process should identify and define bands of performance requiring increased levels of NRC oversight corresponding to degraded licensee performance. The bands should include a threshold above which licensee performance is deemed unacceptable and identify the corresponding regulatory actions.
- Similar to the ROP, the cROP and construction assessment programs should identify a licensee performance band that does not require additional regulatory oversight beyond the baseline inspection level.
- Unlike the ROP, the cROP should evaluate both licensee performance deficiencies and programmatic deficiencies.
- Unlike the ROP, due to the inherently transitory phases of construction, the cROP cornerstones may not be of equal weighting, and a construction assessment process may not be able to integrate them equally.



cROP WG Milestones

Milestone	Goal	Completed
Develop and issue communications plan	January 15, 2010	January 15, 2010
Develop and reach consensus on regulatory structure including strategic performance areas and cornerstones	February 26, 2010	January 19, 2010
Issue General information SECY paper providing an update on the working group activities	March 26, 2010	Draft in concurrence
Develop and reach consensus on construction SDP	May 28, 2010	
Evaluate/develop construction performance indicators	May 28, 2010	
Develop Construction Action Matrix and Enforcement Approach	May 28, 2010	



cROP WG Milestones

Conduct table top of options using NUREG 1055 and contemporary issues	June 18, 2010	
Incorporate needed changes based on table top results	June 25, 2010	
Review/Revise cROP to ROP Transition Plan as Necessary	June 25, 2010	
Develop proposal to pilot and implement cROP	June 25, 2010	
Develop draft revisions or draft new Manual Chapters and IPs as necessary	Sept. 30, 2010	
Develop approach to safety culture (incorporate agency approach)	TBD	
Issue Notation vote SECY paper including construction assessment program options	Sept. 30, 2010	

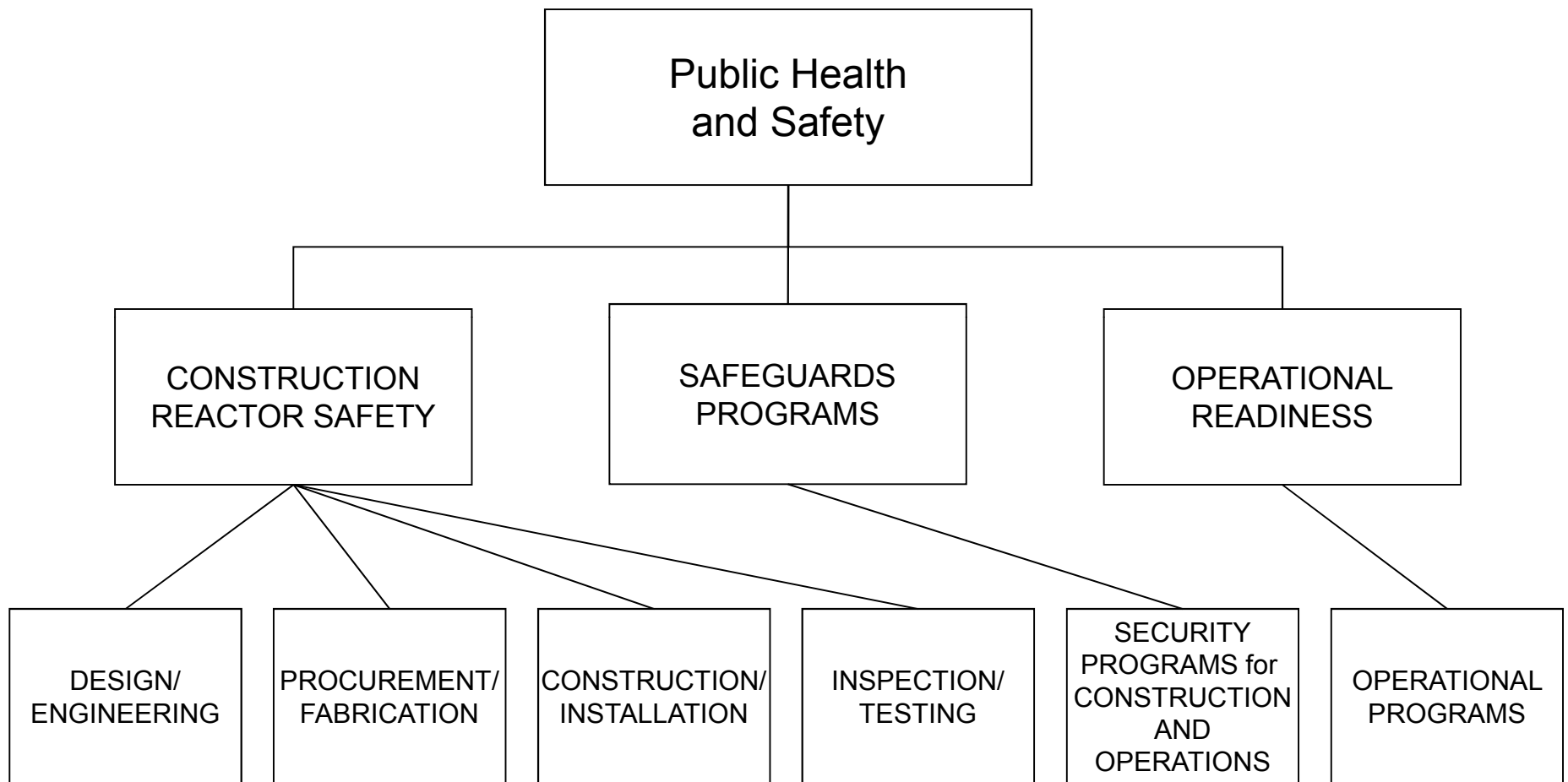


Working Group Progress

- Regulatory Framework
 - Mission
 - Strategic Performance Areas
 - Cornerstones
- cROP Working Group Reached Consensus on Framework including cornerstone objectives, attributes, and areas to inspect



CONSTRUCTION REACTOR OVERSIGHT PROCESS REGULATORY FRAMEWORK





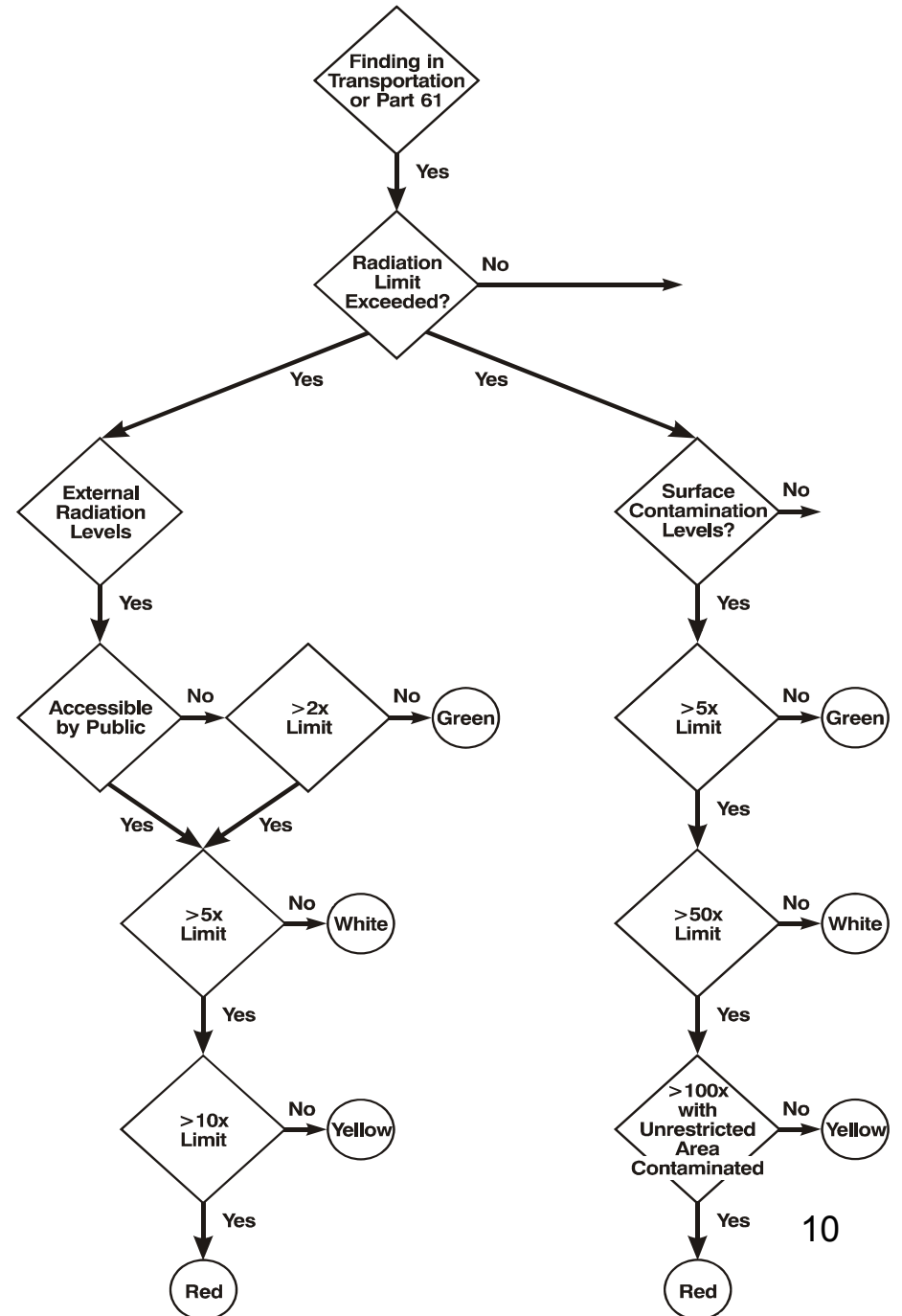
Next Steps

- Issue Information SECY Paper
- Issue Terminology Change to MC 2505s, 0613
 - Construction Terms Should More Closely Resemble ROP Terms
- Develop Significance Determination Process
 - Evaluate Deterministic SDP Similar to ROP SDPs for Radiation Protection, Security, OL, etc
 - Evaluate Risk Matrix
 - Evaluate Continued or Specific Use of Traditional Enforcement



Example of Deterministic SDP

Radiation Limits





Risk Matrix

Degree of Non-Conformance	Low-to-Moderate Safety Significance	Substantial Safety Significance	High Safety Significance
	Low Significance	Low-to-Moderate Safety Significance	Substantial Safety Significance
	Low Significance	Low Significance	Low-to-Moderate Safety Significance
	Low Significance	Low Significance	Low Significance

ITAAC Ranking of SSC



Input/Feedback/Questions