



**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**

- **An NRC multi-office working group was formed to develop construction assessment program options for Commission consideration**
- **Through numerous stakeholder interactions, the staff provided assessment program options to the Commission in SECY-10-0140**
- **Commission SRM directed staff to develop a construction assessment program that includes a regulatory framework, the use of a construction significance determination process (SDP) to determine the significance of findings identified during the construction inspection program (CIP), and the use of a construction action matrix to determine the appropriate NRC response to findings**



# cROP WG Milestones

<b>Expert panel meeting to develop x-axis of SDP matrix</b>	<b>Scheduled for June 22, 2011</b>
<b>Finalize SDP matrix</b>	<b>Complete by July 29, 2011</b>
<b>Conduct table top of SDP using NUREG 1055 and contemporary issues</b>	<b>Complete by August 19, 2011</b>
<b>Incorporate changes to SDP based on table top results</b>	<b>Complete by August 26, 2011</b>
<b>Internal Commissioner's Technical Assistants Briefing</b>	<b>Complete by Sept. 21, 2011</b>
<b>Begin pilot of new process</b>	<b>Begin January 1, 2012</b>
<b>Brief ACRS on pilot results to date</b>	<b>Complete by July 31, 2012</b>
<b>Provide Information Paper to Commission with pilot results and recommended program changes</b>	<b>Due Date: August 31, 2012</b>

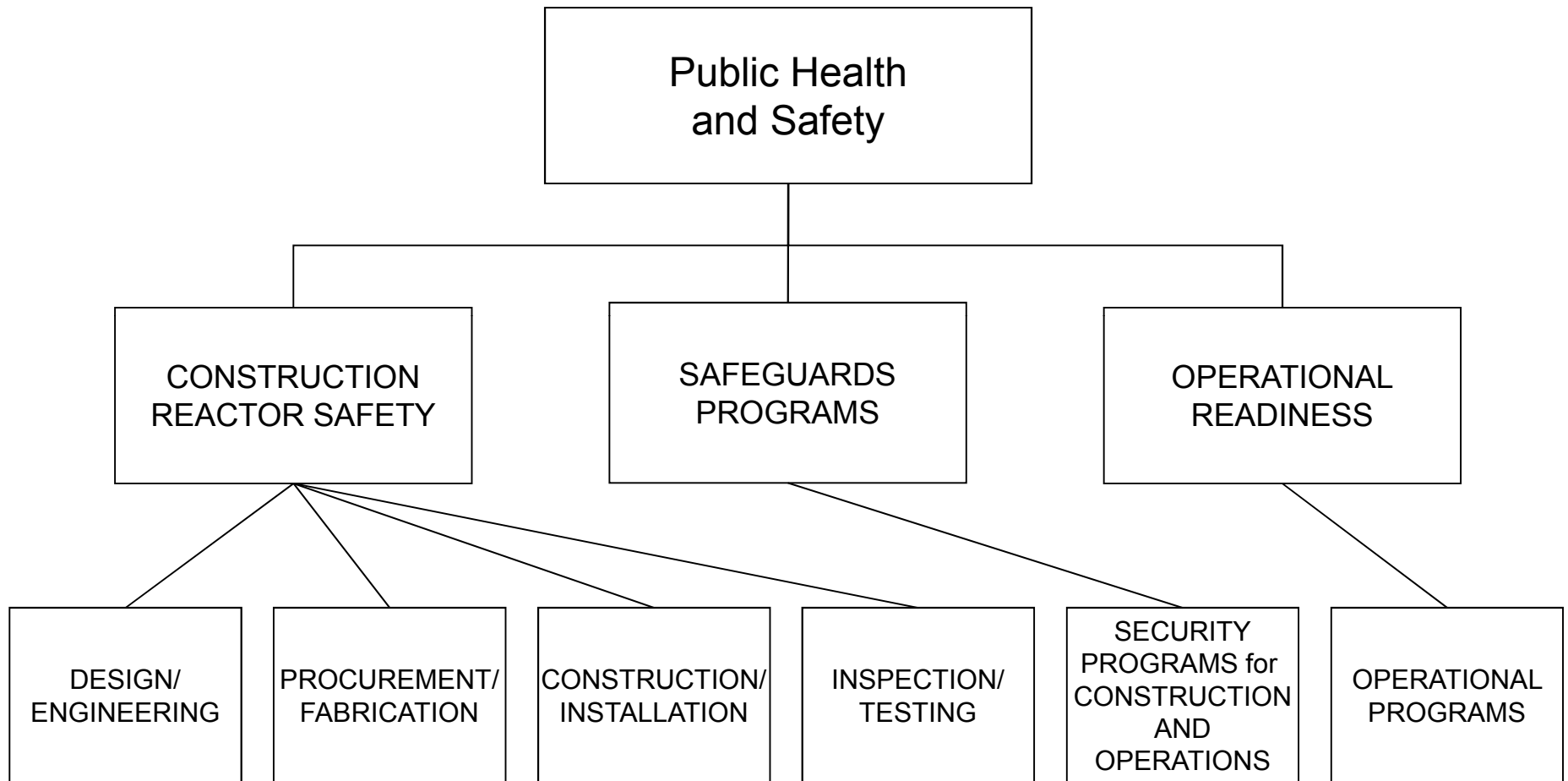


# Working Group Progress

- Regulatory Framework Complete
- Programmatic Finding SDP Concept Complete
- Technical Finding SDP Under Development, Nearing Completion



# CONSTRUCTION REACTOR OVERSIGHT PROCESS REGULATORY FRAMEWORK





# Construction Technical Finding SDP

- The construction SDP matrix consists of two axes
  - Risk Significance on the x-axis
  - Impact on Performance on the y-axis.
- Construction inspection findings will be assigned to a coordinate in the matrix based on the pre-determined risk of the involved system or structure (x-axis) and the row that applies to the impact on performance (y-axis) of the finding
- The risk significance of systems and structures (x-axis) will be determined for each reactor design that is being constructed
- Systems and structures for each design will be pre-assigned to a column on the x-axis of the matrix corresponding to low, intermediate, or high risk significance.



### AP 1000 Construction Technical Finding SDP Matrix

Impact on Performance	Row 4			Yellow	Red
	Row 3	Green		Yellow	
	Row 2	Green	Green		
	Row 1	Green	Green	Green	
	Very low Screen to Green	Low	Intermediate	High	
System/Structure Risk Significance					

#### Systems

all others, e.g.:	<b>PLS</b>	CMT	PMS
SWS	DC-Non 1E	ACC	DC-1E
CCS	<b>DAS</b>	<b>PRHR</b>	IRWST
SFW	<b>AC power</b>		ADS
DG	<b>PRHR</b>		
MFW	<b>CIS*</b>		
<b>PLS</b>	<b>CHR*</b>		
<b>DAS</b>			
<b>AC power</b>			
<b>CAS</b>			
<b>CVCS</b>	* judgment		
<b>NRH</b>			



# Construction Technical Finding SDP

- Row 3
  - Finding materially affects the design function of multiple systems or structures as described in the Design Reliability Acceptance Program (DRAP) or the Design Certification (DC)
- Row 2
  - Finding materially affects the design function of a system or structure as described in the DRAP or DC
- Row 1
  - Finding does not materially affect the design function of a system or structure as described in the DRAP or DC





## Construction Technical Finding SDP

- Once a row designation is determined per the guidance above, the finding will be assigned to the next highest row in the matrix if:
  - A previously unidentified issue invalidates a submitted ITAAC closure letter for an ITAAC associated with the identified condition, or
  - A repetitive significant condition adverse to quality exists that is directly associated with a newly identified performance deficiency



# Input/Feedback/Questions