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# Digital I&C DAC

## Topical Report Approach

Joseph Ashcraft  
Instrumentation, Controls and Electrical Engineering Branch  
Division of Engineering  
Office of New Reactors

# DAC Close-out Documents

## Topical Report Approach

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- For each system or set of related systems specified in either the DCR, R-COLA or S-COLA for digital instrumentation and controls, the applicant can submit a series of topical reports in order to close out DAC items – when?
  - A series of reports at the end of each life cycle phase
  - The documentation that supports the reports are available for (docket, audit, inspection) depending on what phase is being completed

# Submit Topical Reports at the end of each phase

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## Lifecycle Process

- Each report should clearly demonstrated that each phase that has been completed meets all of the requirements for the system(s)
- A report should address each required code or standard with adequate information to support the evaluation.
  - Supporting documentation can be included as an attachment to the report (i.e. would be on the docket)
  - Supporting documentation can be referenced and available for audit/inspection if necessary

# Submit Topical Reports at the end of each phase

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## Lifecycle Process

- Each report should include detailed design information that might include but is not limited to design safety analysis, V&V design analysis report, and CM design report
- Instead of separate reports, the applicant can submit a topical report that includes the plan, how that plan meets the requirements, and the design that implements the plan and requirements

# Ideal Review for Staff

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- This is one acceptable way of closing out a DAC item for digital I&C
- This will lead to an effective and efficient review by staff
- If the quality of these documents is high, then the applicant should be able to implement the rest of the life cycle process successfully

# What we DON'T want to happen

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- The further the applicant pushes out the date for submitting DAC closure documents and the earlier the applicant pushes for license issuance, the greater likelihood scheduling issues for the COLA-R and COLA-S will occur.

# Worst Case



Life Cycle Activity Groups	Planning Activities	Requirements Activities	Design Activities	Implementation Activities	Integration Activities	Validation Activities	Installation Activities	Operation & Maintenance Activities
Software Management Plan	Requirements Specification	Design Specification	Code Listings	System Build Documents			Operations Manuals	
Software Development Plan		Hardware & Software Architecture					Installation Configuration Tables	
Software CA Plan							Maintenance Manuals	
Integration Plan							Training Manuals	
Installation Plan								Change Safety Analysis
Maintenance Plan								V&V Change Report
Training Plan								CM Change Report
Operations Plan								
Software Safety Plan	Requirements Safety Analysis	Design Safety Analysis	Code Safety Analysis	Integration Safety Analysis	Validation Safety Analysis	Installation Safety Analysis		
Software V&V Plan	V&V Requirements Analysis Report	V&V Design Analysis Report	V&V Implementation Analysis & Test Report	V&V Integration Analysis & Test Report	V&V Validation Analysis & Test Report	V&V Installation Analysis & Test Report		
Software CM Plan	CM Requirements Report	CM Design Report	CM Implementation Report	CM Integration Report	CM Validation Report	CM Installation Report		

Process planning

R-COLA issued

DCR issued

S-COLA issued

All DAC documents submitted

ITAAC Closure

DAC Closed

Design outputs

Process implementation

Note: A separate document is not required for each topic identified; however, project documentation should encompass all of the topics.

# What is Most Likely to happen

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- DCR will be issued with DAC and possibly before the requirements activities have been completed.
- R-COLAs will be issued referencing TR for DAC completion, additionally there may be unresolved DAC but should have planning and requirements activities complete.
- S-COLAs will be issued with DAC but with very limited number for specific unique instances.
- DAC will be closed out completely after the FAT activities are complete and all that remains are resolution of ITAAC for the rest of the life cycle.