

Probabilistic Risk Assessment Format and Content

Rick Wachowiak - GE
ESBWR Pre-application Presentation
October 12 & 13, 2004

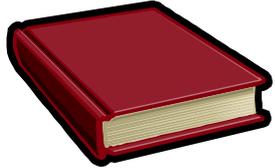
imagination at work



Topics

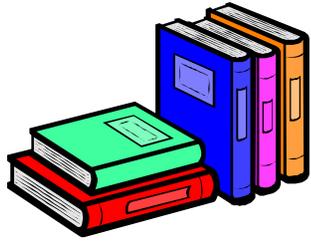
- PRA Submittal
- PRA Content
- PRA Attributes

PRA Submittal Overview



DCD Tier 1 – No PRA information

DCD Tier 2 – Chapter 19



- Brief description of PRA
- Summary of results
- Summary of severe accident treatment
- Insights used in design



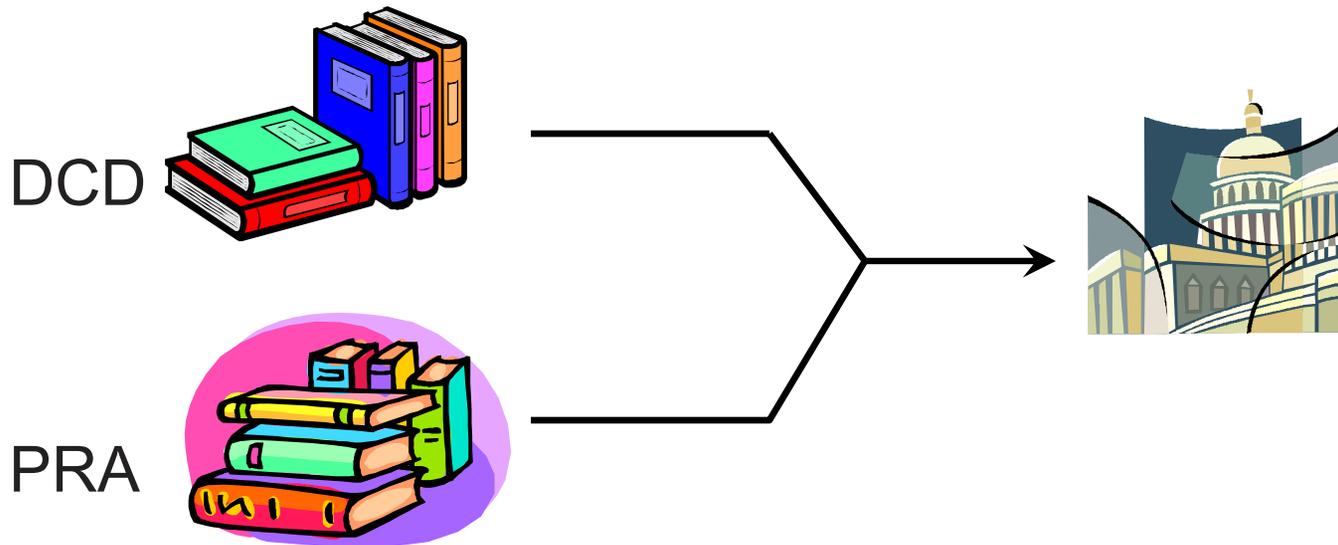
PRA Submittal

- Description of models and analyses
- Results including uncertainty
- Severe accident resolution

Benefit of Separate DCD and PRA

- DCD contains design information
 - ❖ Becomes basis for FSAR
 - ❖ Not expected to change often
- PRA expected to be a living document
 - ❖ Updated based on plant performance
- More readily becomes site specific PRA

PRA Submittal Timing



- Documents prepared in parallel
- Submitted concurrently
- PRA is summarized in DCD

PRA Submittal Content

- Scope and detail similar to ABWR SSAR
- Rearranged to facilitate review
- Repetitive information removed

PRA Attributes to Facilitate Review

- Standard event trees for Anticipated Operational Occurrences
- Success criteria incorporate high confidence values
- Detailed uncertainty analyses
- Comprehensive sensitivity analyses

Early Submittal of Topical Reports

- Can be used to streamline review of controversial issues
- Has been used effectively for other aspects of ESBWR certification
- None anticipated for the PRA

Conclusions

- Separate PRA submittal
- Concurrent with DCD submittal
- PRA developed to facilitate timely review

NRC Actions Requested

- Agreement that separate submittal meets requirements
- Identification of any PRA issues that can be resolved through early topical