



Technical Adequacy of Design Certification PRAs

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PRA Technical Adequacy NRC Guidance Documents

- Regulatory Guide 1.200
- Standard Review Plan Chapter 19.0
- Interim Staff Guidance (ISG-3)
- Publically available Safety Evaluation Reports for passive design certifications
 - AP1000 (ML103260072, ML0434502900)
 - ESBWR (ML103470210)

PRA Technical Adequacy

Key Points

- Regulatory requirements pertaining to PRA technical adequacy limited to PRA scope.
- A generally acceptable PRA meets applicable supporting requirements for capability category I and the high level requirements in ASME PRA Standard.
- No current PRA standard for advanced designs.
- Peer review not required, but staff will review results if peer review or self-assessment is done.

PRA Technical Adequacy Key Points

- Address all applicable internal and external events and all plant operating modes.
- Model completeness is important
 - Identification of initiating events and failure modes should be rigorous
 - Provide justification for leaving SSCs out of model
 - Assumptions regarding design, operations and data should be identified
- Uncertainty in success criteria for passive systems and other novel features should be examined with respect to impact on CDF