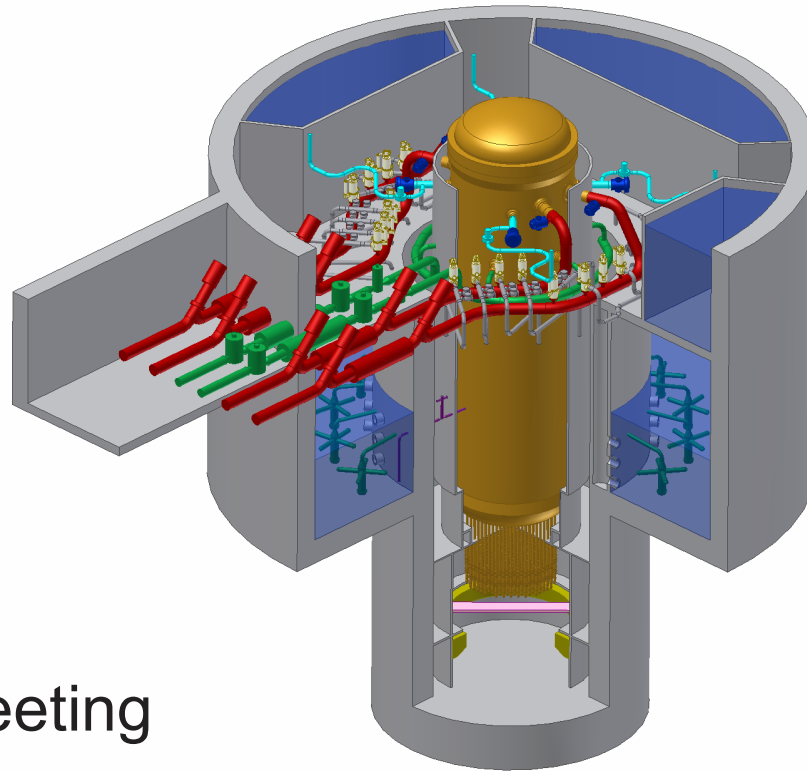


Design Acceptance Criteria (DAC)



ESBWR Pre-application Meeting
October 12 and 13, 2004

Design Acceptance Criteria

- Must be approved by Commission
- GE will submit formal request for approval of DAC that we will seek to include in Tier 1 of the Design Control Document
- Why are DAC desired
 - > Rapidly evolving technology
 - Digital I&C
 - > Level of design detail can not be performed until basic design elements are approved
 - Detailed design requirements can be agreed to

Design Acceptance Criteria (cont)

- The use of design acceptance criteria is a balance of the flexible benefits offered versus the rigidity of detailed design
 - > Ultimately the approaches will arrive at the same end-point
- Use of design acceptance criteria is an approved approach
 - > Matter of semantics
 - When done at a programmatic level they are considered DAC
 - When included at a system level they are considered ITAAC

Design Acceptance Criteria (cont)

- The areas that application of design acceptance criteria are sought for the ESBWR will be similar to those accepted for the ABWR and other advanced plants
 - > No significant design differences in areas where the use of design acceptance criteria are sought

Design Acceptance Criteria (cont)

- Program Level application (DAC)
 - > Human Factors Engineering (HFE)
 - Man Machine Interface (MMI)
 - Main Control Room (MCR) panels
 - Local panels
 - > Instrumentation and Control
 - GE approach is mostly an open architecture
 - Integrated sub-systems
 - > Design Reliability Assurance Program (DRAP)
 - > Initial Test Program

Design Acceptance Criteria (cont)

- System Level (ITAAC)
 - > Emergency Response Facilities
 - Technical Support Center

Design Acceptance Criteria (cont)

- Either Program Level (DAC) and/or System Level (ITAAC)
 - > Piping
 - Design and stress analyses
 - Leak before break (if applicable)
 - > Equipment Qualification
 - > Buildings
 - Structural
 - Divisional separation
 - > Radiation Protection
 - Could be part of Buildings

Tier 2*

- GE will also utilize design acceptance criteria in certain areas that were categorized previously as Tier 2*
 - > From GE's view it is important this be continued
 - > Commodity items
 - New Fuel
 - Control Blades
 - > Evolving or periodically updated requirements and standards
 - ASME

Requested NRC Actions

- Arrive at a mutually understood definition of what DAC really are
- Provide opinion on GE's intended approach for applying design acceptance criteria
- Discuss the process required to seek approval for DAC
 - > Formal GE request or,
 - > Staff request