

# **STATUS OF STANDARDS SUPPORTING RISK-INFORMED and PERFORMANCED- BASED ACTIVITIES**

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# Topics

- Background and History
- Status PRA Standards
- Current Developments
- Future Work
- Summary

# Background/History

- ANS and ASME working cooperatively to develop required nuclear plant standards
- Follow-up to August 2, 2007 NRC Briefing meeting commitments and look forward
- ANS and ASME are building on risk-informed and performance based (RIPB) approaches for the nuclear industry



# Status of Combined PRA Standard

- RA-S-2008 Combined PRA Standard
  - Extends Level 1 PRA to include External Events and Fire
  - Published
- Addenda RA-Sa-2009
  - Addresses issues identified by NRC and users
  - Reformats and restructures to meet needs of technical users and allow future expansion
  - Approved by ANSI



# Current Developments

- Low Power/Shutdown Standard
- Level 2 & 3 PRA Standards
- PRA requirements for new LWR plants and advanced reactors
- RIPB safety classification
- Probabilistic design developments
- Incorporating RIPB applications to new plants



# Future Planned Work

- RIPB Application standards
- Develop training for broader use and application of the PRA standards
- Standards for other facility types
- Standards for security risk management
- Standards for specific technical issues, e.g., uncertainty analysis or human reliability analysis



# Summary

- ASME and ANS are working to develop RIPB approaches for regulatory and industry needs
- Current commitments are on track
- Significant progress achieved, but much more is needed for realizing tangible benefits from RIPB policies
- Need to establish path going forward to incorporate safety benefits of RIPB programs into current and new plants and to address a broader range of issues

