



## RIC 2008 PWROG Perspective on PRA Scope and Quality

David McCoy, Southern Nuclear Company  
Chairman – PWROG, Risk Management  
Subcommittee  
March 13, 2008

1

---

---

---

---

---

---

---

---



### PWROG PERSPECTIVE ON PRA SCOPE AND QUALITY

- Over The Past Decade There Has Been an Increased Use of Risk Information in the Regulatory and Operational Arenas Including:
  - Assessment of routine operational and maintenance activities
  - Decision-making strategies for inspection
  - Assessment of emergent conditions or regulatory findings
  - Changes to the plant licensing basis
- PWR Owners Have Recognized the Need to Improve the Scope and Quality of Their PRAs to Support Plant Operation and Risk-Informed Applications

2

---

---

---

---

---

---

---

---



### PWROG PERSPECTIVE ON PRA SCOPE AND QUALITY

- Owners Have Supported the Development of PRA Standards Via Participation on Standards Committees and Writing Groups
  - External Events Standard
  - Fire PRA Standard
  - LPSD Standard
  - Combined Standard
- Utilities are Expending Significant Time and Resources To Update/Upgrade Internal Events PRAs to Meet RG 1.200 and The ASME PRA Standard
  - Implementation of scope and quality requirements of RG 1.200 have strained limited utility resources
  - Training of new risk professionals requires an extensive amount of time and diversion of existing resources to the training effort

3

---

---

---

---

---

---

---

---



### PWROG PERSPECTIVE ON PRA SCOPE AND QUALITY

- Capability of PRA Models to Support Risk-Informed Applications is Demonstrated Via Self-Assessments And/Or Peer Reviews
  - Major emphasis for PWROG over next 6 years
  - Active PWROG Program for Internal Events PRA Peer Reviews Over Next 3 – 5 Years
  - Equivalent Program for Fire PRA Peer Reviews in pilot/trial stage with full program in approval process
  - Extensive coordination needed to ensure effective use of limited industry resources in the organization of the peer reviews
  - Limited industry resources have made performing the peer reviews in a timely manner challenging

4

---

---

---

---

---

---

---

---



### PWROG PERSPECTIVE ON PRA SCOPE AND QUALITY

- Results of Peer Reviews and Self-Assessments Performed to Date Demonstrate That, In General, Internal Events PRA Quality Is Improving
  - Issues still being identified but tend to be plant-specific problems rather than global in nature
  - Utilities actively working to resolve all identified issues
- Utilities Have PRA Configuration Control Programs to Ensure the Continuing Quality of Their PRAs
- PWROG Will Continue to Support PRA Scope and Quality Initiatives Where Generic Resolutions are Needed

5

---

---

---

---

---

---

---

---



### PWROG PERSPECTIVE ON PRA SCOPE AND QUALITY

- Other On-Going Programs
  - Continuing Support for EPRI PRA Scope and Quality Initiatives
  - Development of Joint ASME PRA Standard Training
  - Treatment of Uncertainty for RITS Initiative 4b
  - Bleed and Feed Success Criteria
- Future Programs Under Consideration
  - Consensus Model Development
    - LOOP
    - ISLOCA
    - Main Steam Line Break
    - Use of Shutdown Cooling for SLOCA
  - Development of PWR Specific Training Modules to supplement EPRI Training

6

---

---

---

---

---

---

---

---



PWROG PERSPECTIVE ON PRA SCOPE AND QUALITY

- Over The Last Five Years, The Industry Has Made Significant Advances In the Scope and Quality of the Plant Internal Events PRAs
- New PRA Standards Are Being Developed and Implemented
- Programs Are In Place to Ensure The Continued Quality of the PRAs Used to Support Risk-Informed Applications

7

---

---

---

---

---

---

---

---