

## Fire Protection Regulatory Issues: Industry Status

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## Fire Protection Discussion Topics

- Fire Induced Circuit Failures
- NFPA 805 Transition Status



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## Fire Induced Circuit Failures

- Plant licensing bases address fire induced “hot short” circuit failures occurring one at a time
- Testing has indicated the possibility of multiple simultaneous operation under certain circumstances
- Industry has agreed to develop a methodology to address fire-induced functional failures



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## Fire Induced Circuit Failures

- Draft of industry methodology distributed to the industry for comment and submitted to the NRC in December 2007
  - Industry methodology is based on operating experience and PRA results
  - Methodology uses fire modeling, risk, and deterministic methods to disposition the results
  - Disposition may require modifications to plant equipment

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## Fire Induced Circuit Failures

- Awaiting NRC formal comments
  - NRC has questioned the use of risk to disposition results
- Known open issues
  - Need for exemptions
  - Use of risk insights
  - Fire PRA resources
  - Treatment of App R, paragraph III.G.3 fire areas
- Workshop held on February 20 and 21 to present the methodology to the industry and seek feedback
- Objective is to finalize the methodology in 2008

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## NFPA 805 Transition Status

- 10CFR50.48(c) endorses the use of the NFPA 805 standard for fire protection for light water reactors
  - 10CFR50.48(c) is voluntary
  - NFPA 805 uses a performance based approach
  - Fire PRA maximizes the benefit from implementation
- Licensees transitioning to NFPA 805 use performance based, risk informed methods
- NRC policy grants enforcement discretion to licensees committing to transition fire protection programs to NFPA 805

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### NFPA 805 Transition Status

- 13 utilities/44 plants committed to transition
- Two pilot plants will submit license amendment requests in mid-2008
- Fire PRA is a challenge
  - Preliminary results are conservative
  - Resources are limited
- Overall transition progress continues to be satisfactory
  - For non-pilot plants, LAR submittal dates may extend beyond current enforcement discretion deadlines



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### NFPA 805 Transition Status

- Industry proposed a change to enforcement discretion policy on February 2, 2007
  - Current policy is 3 years from time of commitment to transition
  - Proposed change is based on pilot plant SE approvals
  - Stagger submittals to allow for limited resources and consideration of pilot plant lessons learned
- NRC considering options



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