



RIC 2009 NFPA 805 Regulatory Infrastructure Development

Steven A. Laur, PE
Sr. Tech Adv. Risk-Informed Initiatives
NRC Office of Nuclear Reactor Regulation
March 12, 2009

1



Regulatory Infrastructure Development and Key Issues

- SRP 9.5.1.2
 - “Risk-informed, Performance-based Fire Protection Program”
 - New SRP chapter
- RG 1.205 revision 1
 - “Risk-informed, Performance-based Fire Protection Program for Existing Light-water Nuclear Power Plants”
 - Enhancement to initial revision to incorporate lessons from pilot plant reviews
- Key issues – focus of this presentation

2



RG 1.205 Rev 1 & SRP 9.5.1.2 – Schedules

- Out for public comment
 - SRP: February 5, 2009
 - RG: 2nd Quarter, 2009
- Public meetings planned in 2nd Quarter, 2009, to engage stakeholders
- Comments requested by:
 - SRP: April 6, 2009
 - RG: (TBD)
- Planned final SRP and RG by 12/2009

3



Key Issues in RG 1.205 Rev. 1*

Changes to Improve Clarity and Regulatory Stability

- Enhanced license condition
- Improved guidance on self approval of changes
- Enhanced guidance on transitioning recovery actions
- Inclusion of definition of primary control station
- Enhanced guidance on carrying over existing exemptions

* SRP 9.5.1.2 aligns with RG 1.205 revision 1

4



Enhanced License Condition

- Explicitly list plant modifications necessary to complete transition to NFPA 805
- Grant self-approval of certain fire protection program changes
 - Risk-informed
 - Non risk-informed
- Include schedule for full implementation of NFPA 805

5



Improved Guidance on Self Approval of Changes

- Risk-informed
 - Decrease in risk
 - Risk increase below criteria:
 - 1E-7/yr delta CDF; 1E-8 delta/yr LERF
 - Combined changes: each individual change must meet the delta risk criteria
 - Maintain safety margin and defense-in-depth
 - No reporting requirement
- Non-risk informed – pending FAQ-8

6



Transitioning Recovery Actions

from Appendix R/Deterministic to NFPA 805

- Additional risk presented by use of recovery actions shall be evaluated
- May be either:
 - Qualitative (e.g., NFPA 805 4.2.4.1)
 - Quantitative (e.g., NFPA 805 4.2.4.2)
- Bounding risk assessment is acceptable

7



Definition of Primary Control Station

- Control station for a system or component
 - Outside the main control room
 - Place where it is normally operated
- If there is a control in the main control room, any other control locations are likely NOT “primary”

8



Primary Control Station (cont'd)

- Licensee may provide justification that an Alternate Shutdown Panel is a “primary control station”
- Should meet the following criteria:
 - Panel is the primary command and control center when the main control room can no longer be used
 - Panel has the requisite system and component controls, plant parameter indications and communications
 - Panel is not for only one component
- Action to transfer to the panel, including diagnosis, is a recovery action

9



Carry over of Existing Exemptions

- Existing exemptions may be used to:
 - Show previous approval for alternatives to the fundamental FPP attributes of NFPA 805 Chapter 3
 - Demonstrate equivalent level of fire protection per NFPA 805 Section 2.2.7 compared to the deterministic requirements of Section 4.2.3
 - These cannot involve recovery actions
- The exemption must be *valid*:
 - Technical basis for approval of the original exemption still applies and is correct
- NRC will ordinarily rescind the original exemption in the license amendment because it will no longer be needed under NFPA 805

10



Conclusion

- Seeking public comment
 - SRP 9.5.1.2 by April 6, 2009
 - RG 1.205 Rev. 1 by (TBD)
- A number of changes to RG 1.205 to improve clarity and regulatory stability
- SRP 9.5.1.2 parallels the revised RG
- Expect final SRP and RG by 12/2009

11
