

Risk-Informed, Performance-Based Fire Protection Implementing Guidance

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Topics

- *Fundamental program elements*
- Methods for addressing Chapter 3 elements (including status of docketed material)
 - Status of “approved licensing basis” if not explicitly approved by NRC
 - Standing of approved licensing basis information within NFPA 805
- Use of 805 tools in current licensing basis
 - Whether guidance can be extended to licensees not adopting NFPA 805
- Section/Chapter 3.1 issues meeting Chapter 1 performance requirements
- NRC approval of 805 appendix material

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Fundamental Elements

- Chapter 3 fundamental elements
 - 3.2 Fire Protection Plan
 - 3.3 Prevention
 - 3.4 Industrial Fire Brigade
 - 3.5 Water Supply
 - 3.6 Standpipe and Hose Stations
 - 3.7 Fire Extinguishers

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Fundamental Elements

- Chapter 3 fundamental elements (continued)
 - 3.8 Fire Alarm and Detection Systems
 - 3.9 Automatic and Manual Water-Based Fire Suppression Systems
 - 3.10 Gaseous Fire Suppression Systems
 - 3.11 Passive Fire Protection Features



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Methods for Addressing Chapter 3 Elements

- Four ways to address each Chapter 3 element
 1. Adopt element as written in Chapter 3 and exceptions in rule language
 - Documentation but no NRC approval required
 2. Bring forward docketed licensing basis material
 - Takes precedence over Chapter 3 approach
 - Documentation but no NRC approval required
 3. Demonstrate equivalency
 - Documentation but no NRC approval required
 4. Propose alternate method
 - Documentation and NRC approval required



**Methods for Addressing
Chapter 3 Elements (2)**

- 1st alternative: Adopt element as written in Chapter 3 and exceptions in rule language
 - Document actions needed to transition to that element
 - No prior NRC review needed

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**Methods for Addressing
Chapter 3 Elements (3)**

- 2nd alternative: Bring forward docketed licensing basis material to supersede specific fundamental element
 - NRC approval not required (see following discussion)
 - Docketed material:
 - Licensee correspondence submitted to NRC on the docket
 - NRC documents related to that license

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**Methods for Addressing
Chapter 3 Elements (4)**

- Use of “docketed licensing bases” rather than “previously approved alternatives” taking precedence over fundamental elements
 - Addressed with NRC in August and September, 2001

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Methods for Addressing Chapter 3 Elements (5)

- Clarifications on proposed industry language
 - Licensee must review and document all docketed items and existing plant design elements intended to take precedence over fundamental elements
 - NRC approval not required, but documentation to be retained for later examination

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Methods for Addressing Chapter 3 Elements (6)

- Proposed industry language
 - Avoids uncertainties in what SER approval covers
 - Provides acceptable means of compliance with Chapter 3
- Ability to carry forward ability to inspect and enforce addresses NRC concerns

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Methods for Addressing Chapter 3 Elements (7)

- 3rd alternative : Demonstrate equivalency of proposed alternate method to 805
 - Requires documentation but not NRC approval
- 4th alternative: Propose alternate method from either current LB or NPPA 805 Chapter 3
 - Industry proposes generic submittals/approvals wherever possible
 - Requires NRC approval

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Use of NFPA 805 Tools in Current Licensing Basis

- This implementing guidance should provide an accepted means of risk-informing fire protection regulation through allowance of NFPA 805 tools in current licensing basis

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Use of NFPA 805 Tools in Current Licensing Basis (2)

- Two basic questions:
 - Why do we need to have guidance for using NFPA 805 tools in the current licensing bases?
 - Why should this guidance be in the implementing guidance document for the rulemaking?

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Use of NFPA 805 Tools in Current Licensing Basis (3)

- Why should we have guidance for use of these tools in the current LB?
 - Important to establish an accepted means for applying risk tools to fire protection within the current regulations
 - Many licensees will choose not to adopt a completely new LB, at least at first
 - These licensees will benefit from a structured and accepted approach for applying risk tools
 - Will provide more consistent risk information support for exemption/deviation requests (benefits NRC and industry)
 - Licensee can use for decision-making on non-regulatory issues

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Use of NFPA 805 Tools in Current Licensing Basis (4)

- Why should guidance for the use of NFPA 805 use in the current licensing basis be in the rulemaking implementing guidance?
 - All guidance related to NFPA 805 tool use should be in one guidance document
 - Will allow licensees to grow used to the application of risk tools, eventually resulting in enough confidence to adopt 805 as an alternate LB
 - Will alleviate NRC concerns about "cherry-picking"

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Chapter 3.1 Issues Meeting Chapter 1 Performance Requirements

- Chapter 1 performance requirements (goals, objectives, criteria)
 - Applicable to alternate risk-informed, performance-based methods proposed by industry or licensee



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NFPA 805 Appendix Material

- Represents one method for implementing provisions of NFPA 805
- Implementing guidance appendices will provide at least one acceptable method for implementing 805
 - Will address NFPA 805 appendix material



NFPA 805 Appendix Material

- NRC staff should
 - Identify to industry in advance any appendix material that they disagree with
 - Work with industry to generically submit/approve proposed methods from 805 appendices rather than on a plant-specific basis, wherever possible

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Summary of Discussion

- NRC and industry summarize meeting discussion

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