

OPERATOR MANUAL ACTIONS RULEMAKING

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OUTLINE

- Present background leading to Operator Manual Actions Rulemaking
- Define Operator Manual Actions
- Discuss acceptance criteria and their technical bases
- Examine path forward and anticipated schedule

BACKGROUND

- 10 CFR 50.48 imposed fire protection (FP) requirements from App. R, Paragraph III.G.2, to pre-1/1/1979 licensed plants
 - Three acceptable methods to protect at least one shutdown train during a fire when redundant trains are located in same fire area
 - 3-hr passive fire barrier
 - 20-ft separation and no intervening combustibles, with fire detection and automatic suppression
 - 1-hr passive fire barrier with fire detection and automatic suppression

BACKGROUND (continued)

- For post-1/1/1979 licensed plants, App. R provisions were incorporated into Branch Technical Position (BTP) CMEB-9.5-1 and NUREG-0800 (Standard Review Plan)
- To “resolve” FP issues related to Thermo-Lag barriers in mid-1990s, some licensees credited “operator manual actions” for III.G.2 rather than provide fire barriers and/or separation with detection/suppression, or seek an exemption

BACKGROUND (continued)

- Since advent of Reactor Oversight Process in 2000, NRC FP inspections have found enough licensees relying on unapproved operator manual actions to raise a III.G.2 compliance concern
- More importantly, some of these operator manual actions may not have been shown to be feasible, thereby creating doubt that safe shutdown could be assured

BACKGROUND (continued)

- In March 2003, NRC issued FP Inspection Procedure, Attachment 71111.05, Enclosure 2 – *Inspection Criteria for FP Manual Actions*, based on inspection experience, that addressed
 - Diagnostic instrumentation
 - Environmental considerations
 - Staffing and Training
 - Communications and Accessibility
 - Procedures
 - Verification and validation

BACKGROUND (continued)

- In June 2003, NRC issued SECY-03-0100, *Rulemaking Plan on Post-Fire Operator Manual Actions*, to revise the FP program requirements contained in Appendix R of 10 CFR Part 50
- In September 2003, the Commission issued a Staff Requirements Memorandum (SRM) on SECY-03-0100 approving “the staff’s recommendation to proceed with rulemaking”

DEFINITION

- Operator manual actions
 - Actions taken by operators to perform manipulation of components and equipment from **outside the main control room** (MCR) to achieve and maintain post-fire safe shutdown. These **actions are performed locally by operators, typically at the equipment.**
- Acceptance criteria apply only to manual actions performed outside the MCR, not manual actions performed inside the MCR

ACCEPTANCE CRITERIA

- Available indications
- Environmental considerations
 - Smoke and toxic gases
 - Temperature and humidity conditions
 - Radiation
 - Emergency lighting
 - Local accessibility

ACCEPTANCE CRITERIA (cont'd)

- Staffing and Training
- Communications
- Equipment
- Procedures
- Demonstration
- Complexity and number

BASES

- NRC *Significance Determination Process*
- NRC FP Inspection Procedure –
Inspection Criteria for FP Manual Actions
- Sandia Report, *Risk Insights Related to Post-Fire Operator Manual Actions*
- Human Reliability Analysis
 - Insights from Advisory Committee on Reactor Safeguards Sub-committee on FP

PATH FORWARD

- Develop final acceptance criteria for operator manual actions considering additional input from
 - Office of Nuclear Regulatory Research
 - Office of Enforcement
 - Advisory Committee on Reactor Safeguards
 - FP Sub-committee
 - External stakeholders
 - Public
 - Industry

SCHEDULE

- Interim enforcement discretion
 - *Federal Register Notice* with public comment period, November 2003 through January 2004
 - Commission approval on policy in 2004
- Final rulemaking
 - Rule scheduled for 2006
 - *Federal Register Notice(s)*, with public comment periods for stakeholder feedback