

June 2, 2004

NOTE TO: Suzanne Black, Director, DSSA/NRR
THRU: John Hannon, Chief, SPLB/DSSA/NRR
FROM: Sunil Weerakkody, Chief, Fire Protection Section, SPLB/DSSA/NRR/RA/
SUBJECT: STATUS OF REACTOR FIRE PROTECTION PROJECTS - MAY 2004

The attached report provides the status of the significant reactor fire protection projects that are assigned to the Fire Protection Engineering and Special Projects Section. The report does not contain allegation-related material, but may contain pre-decisional information.

Changes from the previous status report are in bold text.

Attachments: 1. Status Report - Significant Reactor Fire Protection Projects
2. Fire Protection Major Issues Schedule

CONTACT: Bob Radlinski, SPLB/DSSA/NRR
301-415-3174

PRE-DECISIONAL INFORMATION - NOT FOR PUBLIC DISCLOSURE

ML041460174

N-118

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NAME	RRadlinski	SWeerakkody	JHannon				
DATE							

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ATTACHMENT

**STATUS REPORT
SIGNIFICANT REACTOR FIRE PROTECTION PROJECTS**



**Fire Protection Engineering and Special Projects Section
Plant Systems Branch
Division of Systems Safety And Analysis
Office of Nuclear Reactor Regulation**

May 2004

PRE-DECISIONAL INFORMATION - NOT FOR PUBLIC DISCLOSURE

NFPA 805 RULEMAKING

TASK DESCRIPTION: Revise 10 CFR 50.48, "Fire Protection", to allow licensees to adopt a performance based approach to fire protection as described in the consensus standard NFPA 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants". The revised rule provides a means to re-establish poorly defined fire protection licensing bases and enables licensees to manage their fire protection programs with minimal regulatory intervention. NEI is developing implementation guidance, NEI 04-02, and the Staff plans to endorse this guidance within a regulatory guide.

CURRENT STATUS: The Commission approved the final rule, subject to a minor change, via Staff Requirements Memorandum M040511A of May 11, 2004 (ML041320185). On April 5, 2004, NEI submitted the Revision E of the implementation guidance, NEI 04-02. The NRC Staff forwarded all comments on Revision E of NEI 04-02 to NEI on May 17, 2004. Tele-conferences were conducted on May 25 and May 26 to address NEI questions on the NRC comment. PNNL completed the preliminary draft of the new regulatory guide that will endorse NEI 04-02.

MILESTONES:

Completed Activities

- Proposed Rule published for public comment (November 2002)
- ACRS endorsed final rule (December 2003)
- Staff provided comments on draft NEI 04-01 (January 2004)
- Submitted SECY for Final Rule to Commission (March 2004)
- Submitted revised enforcement policy to EDO (March 2004)
- Commission approved final rule and interim enforcement discretion policy (May 2004)
- Provided complete comments to NEI on NEI 04-02, Rev. E (May 2004)

To-Go Activities

- Publish Final Rule (June 2004)
- Issue draft Regulatory Guide for public comment (August 2004)
- Receive Rev F NEI implementation guide (June 2004)
- Issue draft staff license amendment review guidance (September 2004)
- Issue final staff license amendment review guidance (December 2004)
- Issue final Regulatory Guide (December 2004)
- Validate and verify acceptable fire models (December 2004)
- Prepare inspection procedures and training materials; conduct workshops to train inspectors to perform inspections and audits (March 2005)
- Issue main re-quantification report for fire PRA's - by RES (December 2004)
- Issue refinement to main re-quantification report for fire PRA's to include additional plant experience - by RES (December 2005)
- Issue final inspection guidance (December 2005)

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CHALLENGES → RESPONSES

- Licensees may not adopt revised rule because of the cost and resources required to make transitions → Multi-office effort to develop incentives (e.g., enforcement discretion within the ROP during transition to revised rule)
- Inspection of a performance-based risk-informed rule needs development; inspectors unfamiliar with application → Provide inspection procedures and training of inspectors to the extent needed to ensure proper inspections and audits
- Unapproved fire models and fire PSA methodologies → RES is verifying and validating fire models and developing fire PSA methodologies

CONTACTS: Paul Lain, 415-2346, PWL

Bob Radlinski, 415-3174, RFR1

OPERATOR MANUAL ACTIONS RULEMAKING

TASK DESCRIPTION: Revise Appendix R, Section III.G, "Fire protection of safe shutdown capability", to provide criteria for taking credit for operator manual actions following a fire. The revised rule will provide reasonable assurance that post-fire manual actions will be uniformly evaluated by licensees and inspectors.

CURRENT STATUS: The draft interim criteria for enforcement discretion were published for comment in November 2003. The final interim criteria for enforcement discretion will be submitted to EDO in August 2004. The proposed rule will go to the Commission for approval in December 2004.

MILESTONES:**Completed Activities**

- Prepared proposed rulemaking plan (March 2003)
- Commission approved rulemaking plan (September 2003)
- Published interim criteria for enforcement discretion for public comment (November 2003)
- Public meeting to discuss draft interim criteria and solicit comments (November 2003)
- ACRS briefing on technical basis for interim operator manual actions criteria (April 2004)

To-Go Activities

- Note: the public meeting on interim criteria for enforcement discretion previously scheduled for March 2004 was canceled because it was determined to be redundant to the previous public meeting (November 2003) and the public comment period for the published interim criteria.
- Issue draft revised inspection guidance (June 2004)
- Conduct inspector training sessions - combine with associated circuits training (July 2004)
- Submit draft interim criteria for enforcement discretion to EDO (June 2004)
- Issue draft revised Reg Guide 1.189 to include operator manual actions criteria (August 2004)
- Submit final interim criteria for enforcement discretion SECY to EDO (August 2004)

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- Submit Proposed Rule to Commission (December 2004)
- Issue final revised Reg Guide 1.189 to include operator manual actions criteria (December 2004)
- Issue proposed rule for public comment (February 2005)
- Publish final operator manual actions rule (January 2006)

CHALLENGES → RESPONSES

- Heightened stakeholder concerns for safety → Develop and communicate key messages
- Regulatory uncertainty due to Backfit Rule implications associated with previously approved manual actions that use less stringent acceptance criteria → Develop common understanding among program office/inspectors/licensee about backfit rule implications by providing training and public workshops. (Note that even approved manual actions are subject to ROP for risk-significant safety related findings.)
- Potential regulatory uncertainty among inspectors and licensees due to limiting rule to III.G.2 → Issue regulatory guidance and inspection criteria to establish consistency for all of III.G and beyond
- Congressman Markey letter questioning the proposed regulatory actions with respect to Operator Manual Actions → Detailed response was issued (**ML041030417**).

CONTACTS: Ray Gallucci, 415-1255, RHG

Phil Qualls, 415-1849, PMQ

POST-FIRE SAFE-SHUTDOWN ASSOCIATED CIRCUIT INSPECTION

TASK DESCRIPTION: Provide guidance to licensees and inspectors on a risk-informed approach to inspection of post-fire safe-shutdown spurious actuations resulting from failure of associated circuits. The guidance documents, developed in cooperation with industry, will be combined with operator training to bring clarity to a long-standing unresolved issue.

CURRENT STATUS: A SECY has been prepared to inform the Commission of the path forward with respect to promulgating the NRC guidance for inspections and post-fire, safe-shutdown analyses of associated circuits and to request approval of continued enforcement deferral and discretion for some categories of associated circuit configurations (ML040020068). The guidance will be provided in a revision to Regulatory Guide 1.189, "Fire Protection for Operating Nuclear Power Plants". The first meeting of the Risk Significance of Fire Protection Issues Panel was held in May to begin addressing URI's and other inspection findings related to fire protection and associated risk. The NRC letter forwarding comments to NEI on NEI 00-01, "Guidance for Post-Fire Safe Shutdown Analysis", Rev. 0, is on hold pending further evaluation of the guidance document.

MILESTONES:

Completed Activities

- Issued draft NUREG-1778 (January 2004)
- Issued final RIS for use (March 2004)

- Formed internal staff expert panel to address outstanding URI's and industry self assessment findings (May 2004)

To-Go Activities

- Draft revised inspection procedures for Regions' review (June 2004)
- Issue SECY to Commission describing path forward for issuing guidance on associated circuits (June 2004)
- Issue revised inspection procedures (July 2004)
- Conduct inspector training sessions (July 2004)
- Issue draft revised Regulatory Guide 1.189 for public comment - with Operator Manual Actions revision (August 2004)
- Conduct public meeting (September 2004)
- Issue final NUREG-1778 (November 2004)
- Issue final revised Regulatory Guide 1.189 - with Operator Manual Actions revision (December 2004)
- Withdraw associated circuit analysis inspection moratorium memo (January 2005)

CHALLENGE → RESPONSE

- While risk-informed approach would ensure safety, staff/industry differences on rule interpretation and licensing basis would continue absent further regulatory action → Staff preparing information SECY paper for Commission.

CONTACTS: Mark Henry Salley, 415-2840, MXS3

Dan Frumkin, 415-2280, DXF1

HEMYC FIRE BARRIER QUALIFICATION

TASK DESCRIPTION: Perform testing on multiple configurations of hemyc fire wrap material to determine if the material can be rated as a one-hour fire barrier based on approved test methods. In addition, models will be developed for configurations that are not included in the testing program. The work is being performed by RES and their contractors.

CURRENT STATUS: The contract has been let for the test program.

MILESTONES:

Completed Activities

- Awarded contract for test program

To-Go Activities

- Complete testing and issue test report (December 2005)
- Develop computer models for configurations not included in test program (December 2005)
- Issue inspection guidance (April 2006)
- Conduct inspector training, if required (April 2006)

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CHALLENGE → RESPONSE

- Meeting or improving on the target completion date → monitor progress of program and make adjustments as required

CONTACTS: Dan Frumkin, 415-2280, DXF1

Naeem Iqbal, 415-3346, NXI

FIRE PROTECTION SIGNIFICANCE DETERMINATION PROCESS

TASK DESCRIPTION: Update the existing SDP to simplify the process of using risk-informed methodology to focus inspection findings on the most risk-significant fire protection issues. The revised SDP will facilitate communication among the stakeholders of the bases for significance.

CURRENT STATUS: In April and May, SPLB and SPSB, in cooperation with TTC and Sandia National Lab, conducted training in Regions I and II for Senior Reactor Analysts and Regional Fire Protection inspectors on the recent revisions to MC 0609F, "Fire Protection Significance Determination Process." A multiple area screening tool is also being developed for incorporation in another revision to the SDP in September 2004.

MILESTONES:**Completed Activities**

- Issued draft fire protection SDP for public comment (October 2003)
- Completed tabletop exercises (December 2003)
- Issued SDP for Regional comment (February 2004)
- Conducted training sessions for regional inspectors (April/May 2004)

To-Go Activities

- Issue final fire protection SDP- by SPSB (June 2004)
- Public meeting to discuss fire protection SDP - by SPSB (July 2004)
- Incorporate multiple area screening tool into the fire protection SDP (September 2004)

CHALLENGE → RESPONSE

- Although revised fire protection SDP will simplify the significance determination process, the process will be new to inspectors and licensees → will solicit feedback from inspectors, regional managers, licensees and the public on the quality of the revised process

CONTACTS: Paul W. Lain, 415-2346, PWL

Dan Frumkin, 415-2280, DXF1

QUANTITATIVE FIRE HAZARD ANALYSIS TOOLS

TASK DESCRIPTION: Provide a simplified risk-informed methodology for use by inspectors to assess potential fire hazards that could cause critical damage to safe shutdown components.

CURRENT STATUS: The simplified risk-informed methodology was developed and issued for public comment as draft NUREG-1805, "Fire Dynamics Tools (FDT^s) Quantitative Fire Hazard Analysis Methods for the U. S. Regulatory Commission Fire Protection Inspection Program". Comments have been received and incorporated, as appropriate, and the final NUREG will be issued in April 2004.

MILESTONES:**Completed Activities**

- Issued draft NUREG for public comment (June 2003)

To-Go Activities

- Issue final NUREG (September 2004)

CHALLENGE → RESPONSE

- Convince inspectors to use the tool → Provide adequate inspector training and communicate benefits of using the tool

CONTACTS: Naeem Iqbal, 415-3346, NXI

Mark Henry Salley, 415-2840, MXS3

STEERING GROUP FOR FIRE PROTECTION

TASK DESCRIPTION: Conduct steering group meetings that include representatives from DSSA, DIPM, DRIP, DLPM, RES, OE, OGC and the regions, whose purpose is to provide advice/support and management buy-in on fire protection policy and technical issues. The group will also provide for agency-wide coordination of fire protection regulatory activities.

CURRENT STATUS: The steering group was endorsed by the Leadership Team in January 2004. The first two meetings were held in February and March. There were no issues that required a meeting in the month of **May**.

CONTACT: Naeem Iqbal, 415-3346, NXI