

February 4, 2002

MEMORANDUM TO: John A. Zwolinski, Director
Division of Regulatory Improvement Programs
Office of Nuclear Reactor regulation

FROM: Scott F. Newberry, Director Original signed by
Division of Risk Analysis and Applications
Office of Nuclear Regulatory Research

SUBJECT: FINAL REPORT: RES/OERAB/S02-01, "FIRE EVENTS – UPDATE OF
U.S. OPERATING EXPERIENCE, 1986–1999," DATED JANUARY
2002

This memorandum transmits the final report: RES/OERAB/S02-01, "Fire Events – Update of U.S. Operating Experience, 1986–1999," dated January 2002. This report contains data and results of analyses, as requested in the technical assistance request (TAR) NRR-2001-003, dated March 5, 2001 and our response, dated April 5, 2001.

This work is intended to support NRR activities referenced in the TAR:

- Evaluate fire barriers and 10 CFR 50 Appendix R exemption and deviation submittals (NRR/DSSA/SPLB).
- Input to the fire protection significance determination process (SDP) for evaluating the risk significance of inspection findings (NRR/DSSA/SPSB).

This work will also support RES activities:

- Input to fire risk studies involving fire event data and fire frequencies (RES/DRAA/PRAB).
- Input to ASP analysis involving fire events and trending of operating experience for input to agency trending activities (SECY-01-0111)(RES/DRAA/OERAB).

Vol. 1 of this report documents the data sources, analysis methods, and results for those estimates of fire frequencies by plant location as requested by the TAR. Vol. 2 contains the updated proprietary fire events database (proprietary information), and the nonproprietary smoke events updated database as requested by the TAR.

This report covers all fire events, including small fires, as requested by the TAR. This report does not include a risk significance evaluation of the fire events data or the updated fire ignition frequencies. In fire risk assessments, the severity of the fire events are first evaluated, and the fire ignition frequencies are adjusted appropriately.

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This effort has been coordinated with the industry [The Institute of Nuclear Operations (INPO), Electric Power Research Institute (EPRI), and Nuclear Electric Insurance Limited (NEIL)] and NRC staff (NRR/DSSA/SPLB and RES/PRAB). Comments on the draft report and their resolution are attached.

Vol. 1 is available for unrestricted release, while Vol. 2 contains proprietary information and has restricted distribution. Word Perfect format and spreadsheet format (EXCEL) discs have been provided for both the proprietary fire events database and the nonproprietary smoke events database as attachments to selected NRC staff users of Vol. 2.

Attachments: As stated

MEMORANDUM DATED: 2/4/02

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