

April 5, 2002

MEMORANDUM TO: Gary M. Holahan, Director  
Division of Systems Safety and Analysis  
Office of Nuclear Reactor Regulation

Michael F. Weber, Director  
Division of Fuel Cycle Safety and Safeguards  
Office of Nuclear Material Safety and Safeguards

FROM: Scott F. Newberry, Director /RA/  
Division of Risk Analysis and Applications  
Office of Nuclear Regulatory Research

SUBJECT: "CABLE INSULATION RESISTANCE MEASUREMENTS MADE DURING  
CABLE FIRE TESTS" (PUBLICATION OF FINAL NUREG/CR REPORT)

Attached for your attention is an advance copy of the subject report. This report is currently in the publication process, and will be widely distributed via the normal publication system, including to those who receive a "cc" of this memo without the attached report. This memo summarizes the significant uses we expect the report to have with respect to fire risk analyses.

The report presents the results of cable fire experiments conducted by SNL, which were run in conjunction with EPRI/NEI-sponsored tests at Omega Point Laboratories in Texas. The experimental test results will support a method SNL recommends for use in quantifying risk due to electric cable failures (e.g., "hot shorts") in NPP fires (an earlier version of the report has been publically released). SNL's recommended method was presented in a separate, draft SNL report that was also publically released, "Circuit Analysis - Failure Mode and Likelihood Analysis." Both draft reports were released in order to enable consideration of SNL's data and recommended method by an EPRI/NEI/SNL/NRC expert panel convened to develop consensus regarding a method for quantifying risk due to electric cable failures in NPP fires.

Since the subject report only reports experimental results, and since the same information is already publically available (e.g., it has been given to NRR and nuclear industry persons such as Gareth Parry, Mark Salley, Fred Emerson, Bob Kassawara, Bob Budnitz, Fred Mowrer), we have not distributed this essentially identical, final version of the report for further comment. However, the other NUREG/CR report (regarding the SNL-recommended risk-quantification method) is now in final draft form, and we do plant to re-distribute it for comment before its separate publication in the near future.

We will utilize the information in both reports in conducting the fire risk requantification effort currently underway in cooperation with EPRI at two representative NPPs. Also, we believe the two reports will be of significant importance to industry practitioners who are applying the most recent methods to perform fire PRAs, and by NRC personnel who are reviewing those applications or using the results of fire risk analyses as guidance for fire inspections or investigations in the field.

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Enclosure: NUREG/CR

cc (w/o Enclosure - the publication process will distribute the NUREG/CR to these persons)

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