



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

MAY 5 1980

MEMORANDUM FOR: Harold Denton, Director  
Office of Nuclear Reactor Regulation

Robert Minogue, Director  
Office of Standards Development

Victor Stello, Director  
Office of Inspection and Enforcement

FROM: Robert J. Budnitz, Director  
Office of Nuclear Regulatory Research

SUBJECT: SANDIA TESTS ON FIRE RETARDANCY OF ELECTRICAL  
CABLE SPLICES

The purpose of this memorandum is to bring to your attention the results of recent tests conducted by Sandia Laboratories to determine the degree of fire retardancy of Raychem Heat Shrinkable Splice Material. These tests were conducted at the request of the IE staff from Region I pursuant to their review of the fire resistance of splices in electrical equipment cabinets in the TMI-1 plant.

The enclosed letter from Sandia reports that the heat shrinkable outer layer material of the splices is comparable in its fire retardancy properties to that of electrical cable which is able to pass the IEEE-383 flame test. However, an unexpected result of the test was that the inside sealing material melted, dripped from the splice and burned.

We had not planned on conducting any further fire tests on splices, but in view of the flammability of the sealing material in Raychem splices, we expect to include some typical splices in our planned fire tests on electrical equipment cabinets. Members of your staff have been informed of these test results, and further tests will be discussed with the Fire Protection Review Group.

If you have any questions concerning these results, please call Ron Feit (427-4272).

A handwritten signature in cursive script, appearing to read "Bob Budnitz".

Robert J. Budnitz, Director  
Office of Nuclear Regulatory Research

Enclosure: See Next Page

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Harold Denton  
Robert Minogue  
V. Stello

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Enclosure: Ltr fm Leo Klamerus  
to Ron Feit dtd March 21, 1980

cc w/encl:  
R. Vollmer  
D. Ross, NRR  
R. Mattson, NRR  
S. Hanauer, NRR  
D. Eisenhut, NRR  
PDR