

3M Ceramic Materials

3M Center
St. Paul, Minnesota 55144-1000
612/733 1110

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Mr. Ashok C. Thadani
Director
Division of Systems Safety & Analysis
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Thadani:

On behalf of 3M and Fire Protection Products personnel, I want to thank you for the input at the public meeting in Rockville on January 7, 1993.

I intend to provide comment on the Fire Barrier Testing Acceptance Criteria in the name of 3M and as chairperson of ASTM Task Group E-05.11.8. My major concerns deal with the deviation condition and a lack of any standard to address cable functionality.

As chairperson of ASTM E-05.11.8, I will attempt to include sections in the proposed standard that address cable functionality. This is not a simple subject, and this task group has been reviewing this type of criteria for the past 6 or 7 years.

3M, working with Underwriters Laboratories, has tried various methods of testing cable and methods for evaluating cable functionality, including oven testing to establish failure points, meggering before and after fire testing in both air and water, circuit integrity testing under low and high amperage load during fire testing, and other means. 3M is willing to make this information available to the industry to help develop a functionality test method. The question still exists on proper selection of the cable to be tested should it be artificially aged before testing, as aged cable will function differently than new cables. Cables of the same design, labeled XLPE/PVC, can fail in an oven evaluation test at temperatures as low as 325°F and as high as 750°F, even though the cables are thought to be identical. The choice of cable will be crucial to testing cable functionality.

3M would like to understand the NRC acceptance of the alternate hose exposure test as it is not part of any of the recognized national standards. and use of the fog nozzle hose stream would be a reduction in test performance requirements.

I would like to thank the NRC staff for this opportunity to present 3M's concerns.

Sincerely,

R.R. Licht
Technical Manager
3M Fire Protection Products
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