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September 15, 2003

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68FR49529
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Chief, Rules and Directives Branch
Division of Administrative Services, Office of Administration
U. S. Nuclear Regulatory Commission
Mail Stop T6-D59
Washington, DC 20555-0001

Subject: Comments on Proposed Generic Communication
Risk-Informed Inspection Guidance for Post-Fire Safe-Shutdown Inspections
68 FR 49529 Dated August 18, 2003

Duke Energy Corporation (Duke) offers the attached comments relative to the solicitation for public comments regarding the proposed "NRC Regulatory Issue Summary 2003-XX: "Risk-Informed Inspection Guidance for Post-Fire Safe-Shutdown Inspections" as published in the Federal Register on August 18, 2003. Duke also fully endorses the industry comments provided by NEI regarding this draft Regulatory Issue Summary.

Please address any questions to L. B. Jones at 704-382-4753.

Very truly yours,

W. R. McCollum, Jr.
Senior Vice President, Nuclear Support

Attachment

E-RIDS = ADM-03

Att = C.D. Petrone (OSP)
M.H. Salley (MXSA)

Template = ADM-013

**Duke Energy Corporation
Comments on Proposed Regulatory Issue Summary 2003-XX
Risk-Informed Inspection Guidance for Post-Fire Safe-Shutdown Inspections
Federal Register Notice 68 FR 49529 of August 18, 2003**

Page 49531 of this Federal Register notice in the Attachment: Draft Guidance for Risk-Informing NRC Inspection of Associated Circuits: Basic Risk Equation, Section 2. "Likelihood of Fire Effects & Cable Attributes that Contribute to Failure", Items A and B contain the following text:

A. Thermoplastic Cables. Thermoplastic cables (typically non-IEEE 383 qualified) should be assumed to fail if exposed to the *hot gas layer or plume temperatures* of 425[deg]F or greater for a minimum of 5 minutes. In the case of radiant heat transfer, the cable should be assumed to fail if exposed to a minimum 5kW/m² for 5 minutes. When a thermoplastic cable is within the flame zone of the fire (direct flame impingement) or in a cable tray that is burning, damage should be assumed to occur in 5 minutes.

B. Thermoset Cables. Thermoset cables (typically IEEE 383 qualified) should be assumed to fail if exposed to *hot gas layer or plume temperatures* of 700[deg]F or greater for a minimum of 10 minutes. In the case of radiant heat transfer, the cable should be assumed to fail if exposed to a minimum 10kW/m² for 10 minutes. When a thermoset cable of concern is in the flame zone of the fire (direct flame impingement), or in a cable tray that is burning, damage should be assumed to occur in 10 minutes.

Duke Comments

1. "hot gas layer or plume temperatures" shown above in italics in both Item A and Item B should be changed to "cable temperature." The EPRI and Sandia Testing reported a "maximum cable temperature" and compared this to the time to damage. The actual hot gas layer was measured and not reported, but was 100 [deg]F higher or more than the maximum cable temperature.

The Regulatory Issue Summary should be revised to include this additional temperature increase prior to failure.

2. The RIS does not address the issue of "multiple hot shorts" for armored cable. The Risk-Informing Post-Fire Shutdown Circuit Analysis Inspection meeting of February 19, 2003 determined that multiple spurious actuations in an armored cable should be in "bin 2" and held for further evaluation (meeting minutes pages 203 and 204).

This should be stipulated in the Regulatory Issue Summary.

U. S. Nuclear Regulatory Commission

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