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December 12, 2001

66FR51479  
10/09/01  
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Mr. David L. Meyer, Chief  
Rules and Directives Branch  
Division of Administrative Services  
Office of Administration  
Mail Stop T-6 D59  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Comments on Draft Regulatory Guide DG-1077,  
"Guidelines for Environmental Qualification of  
Microprocessor-Based Equipment Important to Safety in  
Nuclear Power Plants"  
66FR51479, dated October 9, 2001

Dear Mr. Meyer:

Duke Energy (Duke) offers the following comments relative to the solicitation for public comments regarding DG-1077, "Guidelines for Environmental Qualification of Microprocessor-Based Equipment Important to Safety in Nuclear Power Plants."

Duke is of the opinion that current Regulatory Guides offer sufficient guidance for the environmental qualification of electrical equipment important to safety. DG-1077 specifically states that Regulatory Guide 1.89<sup>1</sup>, which endorsed IEEE Std 323-1974<sup>2</sup>, is appropriate for environmental qualification of electrical equipment and is supported by over 16 years of experience. Additionally, Regulatory Guide 1.180<sup>3</sup>, together with current requirements for fire protection contained in 10CFR50, Appendix R, provide adequate guidance for the evaluation of

<sup>1</sup> Regulatory Guide 1.89, "Environmental Qualification of Certain Electrical Equipment Important to Safety for Nuclear Power Plants" (June 1984)

<sup>2</sup> IEE Standard 323, "Standard for Qualifying Class 1E Equipment for Nuclear Power Generating Station"

<sup>3</sup> Regulatory Guide 1.180, "Guidelines for Evaluating Electromagnetic and Radio-Frequency Interference in Safety Related Instrumentation and Control Systems"

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Add - A. Beranek (AFB)  
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potential stressors resulting from electromagnetic interference/radio-frequency interference and smoke.

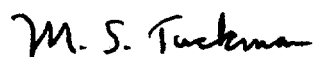
Furthermore, Duke is of the opinion that the introduction of the new definition of nuclear plant environments in Section B, page 5, of DG-1077 (Categories A, B, and C) constitutes a staff position different from that previously provided by the staff (mild and harsh environments) in existing Regulatory Guides and, as such, should be subject to systematic and documented backfitting analysis consistent with the requirements of §50.109(a)(2).

Based on the above, Duke's review of Draft Regulatory Guide DG-1077 indicates that it would be more appropriate for the staff to update existing Regulatory Guide 1.89, "Environmental Qualification of Certain Electrical Equipment Important to Safety for Nuclear Power Plants" (June 1984). The categorization of nuclear power plant environments should be evaluated in partnership with industry and other stakeholders through the appropriate IEEE consensus standards revision process. Without the active participation of component manufacturers and industry representatives in the development of new definitions of environments, the proposed classification terminology will likely cause confusion and uncertainty when qualifying new mechanical/electrical equipment containing embedded microprocessors.

Please address any questions to Jim Effinger at (704) 382-8688.

Thank you for the opportunity to provide these comments.

Very truly yours,

A handwritten signature in black ink, appearing to read "M. S. Tuckman". The script is cursive and fluid.

M. S. Tuckman

U. S. Nuclear Regulatory Commission

December 12, 2001

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bxc: M. T. Cash

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