

August 9, 2001

MEMORANDUM TO: Daniel Dorman, Chief
Engineering Research Applications Branch
Division of Engineering Technology
Office of Nuclear Regulatory Research

FROM: José A. Calvo, Chief *(/RA by JACalvo)*
Electrical & Instrumentation and Controls Branch
Division of Engineering
Office of Nuclear Reactor Regulation

SUBJECT: REVIEW OF NUREG/CR-XXXX, "APPLICATION OF
MICROPROCESSOR-BASED EQUIPMENT IN NPPS" AND DG-1077,
"GUIDELINES FOR ENVIRONMENTAL QUALIFICATION OF
MICROPROCESSOR-BASED EQUIPMENT IMPORTANT TO SAFETY
ON NPPS"

A memorandum from Sher Bahadur dated May 15, 2001, requested our review of the subject NUREG and accompanied draft Regulatory Guide DG-1077, on the proposed qualification methodology of advanced instrumentation based on the endorsement of IEEE Std. 323, 1983, and IEC Std. 60780, 1998.

We reviewed the subject reports and on June 26, 2001, provided comments, by E-mail to Christina Antonescu of your staff, which resulted in revisions to the subject NUREG and to the accompanying draft Regulatory Guide DG-1077.

We have reviewed the revised version of subject reports and have concluded that the comparative analysis of the two environmental standards and recommendations for enhancing regulatory guidance for qualification of microprocessor-based safety systems will assist the staff in future reviews and provide licensees additional options. Therefore, when draft Regulatory Guide DG-1077 is published, we will reference it in the Standard Review Plan.

CONTACT: Evangelos C. Marinos, EEIB/DE
415-2911

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