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Group Vice President

Chief, Rules and Directives Review Branch
U. S. Nuclear Regulatory Commission
Washington, DC 20555

SUBJECT: COMMENTS ON PROPOSED GENERIC COMMUNICATION
NRC GENERIC LETTER: "ANALOG-TO-DIGITAL
REPLACEMENTS UNDER 10 CFR 50.59."

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OFFICE OF ADMINISTRATION
USNRC

Gentlemen:

TU Electric is pleased to have the opportunity to provide comments to the proposed Generic Communication NRC Generic Letter: "Analog-to-Digital Replacements under 10CFR50.59," published in 57 FR 36680 of the Federal Register.

The proposed generic letter sets forth the staff's position on the replacement of analog safety systems with digital microcomputer based safety systems. The NRC is correct in believing that introducing technology to Nuclear Power Plants requires a calculated and methodical approach. However, TU Electric believes that NRC's position that all replacements constitute an unreviewed safety question and thus cannot be performed in accordance within the guidance of 10CFR50.59 and without prior NRC approval is overly conservative.

The generic letter states that the staff's position is not meant to discourage the installation of digital systems. However, the position that all safety-related analog to digital replacements require review prior to implementation as unreviewed safety questions will create a bottleneck which will hinder the introduction of current technology into existing plants. A more appropriate position to assume is that of a partnership between industry and the NRC so that the design criteria, reliability and availability data, and the installation procedures may be jointly developed.

The Electric Power Research Institute (EPRI) has undertaken an initiative to upgrade instrumentation and control (IC) systems in Nuclear Power Plants. The initiative attempt to introduce current digital technology as well as advanced analog technology into several demonstration plants. EPRI, under the Integrated Instrumentation and Control Upgrade Plan, is forming demonstration plant teams comprised of utility, EPRI, and vendor and equipment supplier personnel to define and address the problems with upgrading Nuclear Power Plants to current technology. Participation in the development process will provide regulatory input and allay many of the staff's concerns on digital technology. NRC involvement and input into the

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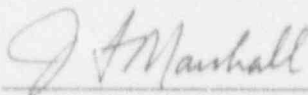
development of the design processes and installation procedures will result in licensee confidence that the upgrades can be implemented in an efficient manner and without long delays.

The NRC should also look to the efforts, successes, and lessons learned of foreign utilities, and regulatory agencies such as the Canadian, French, and Japanese agencies in introducing current technology. In the proposed generic letter the NRC enumerates various concerns which have the potential to affect the safety function. Concerns, similar to those listed, affect the installation of analog circuitry. However, the concerns affecting analog circuitry have been addressed through effective design reviews, specific industry guidance documents and administrative controls. The NRC further singles out software as being of most notable concern. TU Electric agrees that software is the heart of the digital system. TU Electric can but point to the successes of foreign programs in using digital safety-related systems. The EPRI initiative has a good discussion on the design reviews and controls employed by Electricite' de France as well as other foreign programs.

Current digital technology has been proven to be safe and reliable at foreign utilities as well as in other segments of our society. Rather than adopt the untimely position of the draft generic letter, the NRC should cooperate with the industry to facilitate the replacement of sometimes outmoded and not always supported technology with current digital technology.

Sincerely,

William J. Cahill, Jr.

By: 

J. S. Marshall
Generic Licensing Manager

JDR/