

October 19, 2001

MEMORANDUM TO: Cynthia A. Carpenter, Chief
Risk Informed Initiatives, Environmental, Decommissioning,
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Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

FROM: Peter C. Wen, Project Manager/**RAI**
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SUBJECT: SUMMARY OF OCTOBER 11, 2001, MEETING WITH THE NUCLEAR
ENERGY INSTITUTE AND THE ELECTRIC POWER RESEARCH
INSTITUTE REGARDING LICENSING DIGITAL UPGRADE ISSUES

On October 11, 2001, members of the NRC staff and representatives from the Nuclear Energy Institute (NEI), the Electric Power Research Institute (EPRI), vendors, various licensees, and members of the public participated in a public meeting held at the Nuclear Regulatory Commission (NRC) offices in Rockville, Maryland. The purpose of the meeting was to discuss NEI 01-01 (EPRI TR-102348-R1, Draft E, "Guideline on Licensing Digital Upgrades.") This document was developed by NEI and EPRI to reflect the new 10 CFR 50.59 regulation as well as design standards on digital upgrades. Attachment 1 lists attendees at the meeting, and Attachment 2 contains a copy of the material presented at the meeting.

The meeting focused on the 30 comments provided by the NRC staff to NEI/EPRI via letter dated August 23, 2001 (ADAMS Accession # ML01239021) and e-mail dated October 9, 2001 (ADAMS Accession # ML012890464), and the proposed resolution of these comments by NEI/EPRI. Twenty-two of the comments were resolved by making the necessary changes in the NEI/EPRI document to reflect the comments. The detailed discussions on these resolutions are contained in Attachment 3.

The remaining 8 open comments dealt with the consideration of software common cause failure (CCF) discussed in the licensing guidelines for digital system upgrades. NEI/EPRI's approach to clarify the treatment of software CCF is to separate the guidance for 10 CFR 50.59 activities from that for digital I&C system design aspects. The 50.59 activities consider the treatment of software CCF in 50.59 screening (i.e., whether the I&C system change to a digital system should be screened in or out) and in 50.59 evaluations of the likelihood of malfunctions due to software CCF and the results of malfunctions. The guidance on the design aspects of software CCF focused on design life cycle activities that minimize the likelihood of such failures and the consideration of defense-in-depth and diversity to compensate for the uncertainty in the likelihood of CCF. Following a discussion of how this approach will likely change the 8 open comments, the NRC staff agreed on the proposed resolution strategy for these comments.

The industry's representatives indicated that they would submit the revised guideline to NRC for staff's review and approval in December 2001.

Representatives of the NRC and the industry agreed that this meeting had been useful for the exchange of information on this subject.

Project Nos. 689 and 669

Attachments: As stated

cc w/atts: See next page

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Project Nos. 689 and 669

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NRC-NEI/EPRI Meeting on Licensing Digital Upgrade Issues
LIST OF ATTENDEES
October 11, 2001

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Evangelos Marinos	NRR/DE/EEIB
Matt Chiramal	NRR/DE/EEIB
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Cliff Doult	NRR/DSSA/SPSB
Roman Shaffer	RES/DET/ERAB
Eileen McKenna	NRR/DRIP/RGEB
Peter Wen	NRR/DRIP/RGEB
Lennette Hendricks	NEI
Ray Torok	EPRI
Joseph Naser	EPRI
Bruce Geddes	Duke Energy
James Kirpatrick	Constellation Energy
Jim McQuighan	Constellation Energy
Kristin Davis-Paul	MPR Associates
Eric Claude	MPR Associates
Jerry Mauck	Framatome
Lane Hay	Serch/Bechtel
Deann Raleigh	Sciencetech
Paul Rebstock	Sciencetech
Joseph DeBor	AeroFlex Alteit