

December 10, 2003

MEMORANDUM TO: Stephen Dembek, Chief, Section 2
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

FROM: Bo M. Pham, Project Manager, Section 2 **/RA by Brian Benney for/**
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF MEETING WITH THE ELECTRIC POWER RESEARCH
INSTITUTE (EPRI) AND NUCLEAR ENERGY INSTITUTE (NEI)

On December 4, 2003, the NRC staff conducted a meeting with EPRI and NEI to discuss EPRI's project on risk-informed diversity and defense-in-depth (D3) for digital upgrades. A list of attendees is attached. The presentation slides are available in ADAMS under accession number ML033390238.

EPRI opened the meeting with an overview of industry's past and current efforts to define approaches for assessing D3 in digital upgrades (software), then followed with presentations on the three D3 methods that EPRI currently endorses: deterministic, probabilistic, and simplified risk-informed. The NRC staff had questions on the bases of each proposed approach.

The final presentation discussed the research on assessment of digital system reliability and the industry's proposed derivation and adoption of an assessment standard for software. Operational experience was mainly drawn from the civil aviation industry and existing European standards. The NRC staff expressed several points of concern regarding the almost-sole reliability on the aviation industry's data and the modeling of the probability bases.

EPRI closed the presentations with its future plans and schedule to produce generic guidance documents for the industry on the subject topic. At this time, a formal review is not yet requested of the NRC, but draft copies of the documents will be available for NRC staff if requested.

Project No. 669

Attachment: List of Meeting Attendees

cc w/att: See next page

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TMensha

EMarinos

DHarrison

CGraham

CDoutt

MWaterman

SArndt

MChimaral

PLoeser

PRebstock

**MEETING WITH ELECTRIC POWER RESEARCH INSTITUTE (EPRI)
LIST OF ATTENDEES**

December 4, 2003

EPRI

G. Vine
P. O'Regan
R. Torok
T. Nguyen

OTHER

R. Luckett (NEI)
D. Banchard (AREI)
S. Swanson (SNC)
B. Geddes (FANP)
P. Lobner (DS&S)
B. Fink (MPR)
J. M'Quighan (Constellation Energy)
C. Scott (Triconex)
D. Raleigh (LIS, Scientech)
P. Bisges (Ameren UE)
D. Tirson (TXU/CPSES)
L. Erin (Westinghouse)
G. Lang (Westinghouse)
D. Popp (Westinghouse)
J. Bryan (Duke Power/Oconee)

NRC

S. Dembek
B. Pham
P. Loeser
E. Marinos
S. Arndt
M. Chimaral
P. Rebstock
D. Harrison
C. Graham
C. Doult
M. Waterman

cc:

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