

November 21, 2007

Dr. William J. Shack, Chairman
Advisory Committee on Reactor Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

SUBJECT: DIGITAL INSTRUMENTATION AND CONTROL SYSTEMS PROJECT PLAN
AND INTERIM STAFF GUIDANCE

Dear Dr. Shack:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your letter to Chairman Klein, dated October 16, 2007, which summarized the views of the Advisory Committee on Reactor Safeguards (ACRS or the Committee) regarding the staff's activities related to the Digital Instrumentation and Controls (I&C) Project Plan and Interim Staff Guidance (ISG). The staff and I appreciate your support of the ISGs on diversity and defense-in-depth (D3), highly integrated control room communications, and highly integrated control room human factors.

Since the beginning of the year the staff has been working to develop a number of ISGs through the work of seven task working groups (TWGs) under the direction of the NRC Digital I&C Steering Committee to provide additional guidance in areas of Digital I&C and human factors.

The staff agrees with the Committee's recommendation that as part of developing longer term regulatory guidance for D3 assessments for digital systems an alternative process for determining the conditions under which operator manual actions can be credited as a diverse protection function should be explored. As part of the ongoing work of the D3 and human factors TWGs, the staff will investigate the possibility of developing alternative guidance. The staff also agrees with the Committee's recommendation to further examine the issue of spurious actuations as it relates to D3 guidance. Also, as identified by the Committee, the staff will evaluate spurious actuations in developing the longer term regulatory guidance for D3 assessments. In particular, this will include the areas of automatically reconfigurable systems and unintended functions actuated during the progression of a plant transient or accident.

Additional assessment of these areas will be included in the long term activities of the Digital I&C Project Plan for Diversity and Defense-In-Depth.

W. Shack

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The staff and I appreciate the comments and recommendations provided by the ACRS and look forward to continuing to work with the ACRS as the staff completes the remaining ISGs and develop final regulatory guidance.

Sincerely,

/RA Martin J. Virgilio for/

Luis A. Reyes
Executive Director
for Operations

cc: Chairman Klein
Commissioner Jaczko
Commissioner Lyons
SECY

The staff and I appreciate the comments and recommendations provided by the ACRS and look forward to continuing to work with the ACRS as the staff completes the remaining ISGs and develop final regulatory guidance.

Sincerely,

/RA Martin J. Virgilio for/

Luis A. Reyes
Executive Director
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cc: Chairman Klein
Commissioner Jaczko
Commissioner Lyons
SECY

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