

May 1, 2008

MEMORANDUM TO: Luis A. Reyes
Executive Director for Operations

FROM: Annette L. Vietti-Cook, Secretary **/RA/**

SUBJECT: STAFF REQUIREMENTS - BRIEFING ON DIGITAL INSTRUMENTATION AND CONTROLS, 9:30 A.M., MONDAY, APRIL 7, 2008, COMMISSIONERS' CONFERENCE ROOM, ONE WHITE FLINT NORTH, ROCKVILLE, MARYLAND (OPEN TO PUBLIC ATTENDANCE)

The Commission was briefed by an industry panel and the staff on the application of digital instrumentation and controls (I&C) for safety systems at nuclear power plants. The industry panel provided its views on the progress being made on clarifying the licensing criteria for digital I&C systems for existing and new reactors, and for fuel cycle facilities. The staff discussed the Digital I&C Steering Committee's activities since the last Commission briefing including the development and use of the Interim Staff Guidance. The staff also discussed its review of digital I&C-related topics including operating experience, probabilistic risk assessments, and common cause failure coping strategies (e.g., application of 30-minute criteria) and outlined the ongoing issues and the paths forward.

The Commission was encouraged by the progress to date on addressing digital I&C issues. The staff should continue development of the digital I&C human capital, training, and guidance development, keep the Commission informed of any new policy issues, and brief the Commission again within one year.

SRM M071024 stated that the staff should provide an information paper on its plan for assessing and meeting training and infrastructure (e.g. simulator) needs to accomplish inspections and operator licensing related to new reactors. The staff should provide a similar information paper addressing digital I&C systems in the existing reactor fleet.

Following its April 30, 2008 update to the Commission on the new reactor program, the next staff update to the Commission on the new reactors program should include status of progress on its plan to incorporate digital I&C knowledge, skills, and abilities into operator licensing standards for new reactors, including how the standards will address recognizing and responding to indications of digital system failures.

The staff's design certification and licensing reviews should continue to ensure that an applicant's process for developing digital I&C systems is of appropriately high quality for the function that the digital system will perform. The staff should continue to work with stakeholders to clarify regulatory guidance and standards on the level of detail and documentation that staff needs to perform technical reviews of license applications and topical reports on digital safety systems.

The staff should continue to develop and issue guidance that will encourage standardization of digital instrumentation and control systems for future nuclear power plants.

cc: Chairman Klein
Commissioner Jaczko
Commissioner Lyons
Commissioner Svinicki
OGC
CFO
OCA
OIG
OPA
Office Directors, Regions, ACRS, ACNW, ASLBP (via E-Mail)
PDR