



UNITED STATES
NUCLEAR REGULATORY COMMISSION

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June 13, 1997

52-002

Mr. Nicholas J. Liparulo, Manager
Nuclear Safety and Regulatory Analysis
Nuclear and Advanced Technology Division
Westinghouse Electric Corporation
P.O. Box 355
Pittsburgh, PA 15230

SUBJECT: AP600 USE OF A COMPUTERIZED PROCEDURE SYSTEM

Dear Mr. Liparulo:

Currently Westinghouse cites a "computerized procedure system" throughout the AP600 Standard Safety Analysis Report (SSAR) and in references to the SSAR. For the reasons stated below, this is unacceptable.

Over the course of reviewing the AP600 SSAR, the staff acknowledged that Westinghouse could include a "concept or mission" level discussion of computerized procedures, realizing that a review of the detailed procedures system was beyond the scope of design certification. However, the staff now recognizes that by allowing Westinghouse to discuss the computerized procedures system in either inspection, test, analysis, and acceptance criteria or the SSAR could imply that the staff has accepted the use of computerized procedures. The staff is not prepared to endorse computerized procedures as a presentation medium in a nuclear power plant environment at this time without a sufficient technical basis for determining the acceptability of such a system.

The staff's initial technical concerns with the computerized procedures system are documented in the Draft Safety Evaluation Report (DSER) for the AP600, specifically, DSER Open Items 18.9.3-4, 18.9.3-7, 18.9.3-8, 18.9.3-9 and 18.9.3-10. In numerous discussions, the staff and Westinghouse agreed that procedure development (i.e., Element 8 of the HFE PRM, NUPEG-0711), would be addressed as a COL item and not as part of the AP600 design certification. Therefore, the staff did not pursue technical resolution to the procedures-related DSER open items.

Consequently, it is premature for the staff to conclude that computerized procedures are acceptable and warrant issue preclusion which could be inferred by including the reference to the computerized procedures in the SSAR. The staff believes that it is appropriate that the acceptability of such a system for the application to the AP600 design be determined during the implementation of the AP600 verification and validation program.

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To correct this problem the staff believes that Westinghouse has one of the following options:

- 1) Remove all references to a "computerized procedure system" throughout the SSAR and its references.
- 2) Include the following statement in the applicable sections of Chapter 18 of the SSAR and appropriate SSAR references:

Although the AP600 human system interface resources include a computerized procedure system, evaluation of the acceptability of the system is not part of the NRC staff AP600 Human Factors Engineering Program review. The NRC neither endorses nor rejects the possibility of using a computerized procedure system as a means for providing instruction to plant personnel. At the time of AP600 design certification, the NRC staff does not support or deny the acceptability of implementing a computerized procedure system in a nuclear power plant environment. The acceptability of such a system for application to the AP600 design will be determined during the implementation of the AP600 verification and validation program.

- 3) Submit the computerized procedure system for design certification, allowing the staff to determine the acceptability of the system. It should be noted that this option is a major change to the established design review approach for Chapter 18 and it is anticipated that it would require a significant increase in time, resources, and budget.

If you have any questions concerning this matter you can contact Joe Sebrosky at (301) 415-1132.

Sincerely,

original signed by:

Marylee M. Slosson, Acting Director
 Division of Reactor Program Management
 Office of Nuclear Reactor Regulation

Docket No. 52-003

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Docket No. 52-003
AP600

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