



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

September 16, 1997

Docket File  
52-103

Mr. Nicholas J. Liparulo, Manager  
Nuclear Safety and Regulatory Activities  
Nuclear and Advanced Technology Division  
Westinghouse Electric Corporation  
P.O. Box 355  
Pittsburgh, PA 5230

SUBJECT: HUMAN FACTORS ENGINEERING ISSUES RELATED TO AP600 OPERATOR  
WORKSTATIONS AND COMPUTERIZED PROCEDURE SYSTEM

Dear Mr. Liparulo:

This is to document that the Human Factors Assessment Branch, as part of its continuing review of AP600 inspections, tests, analyses, and acceptance criteria (ITAAC), has identified two policy-level issues; one related to operator workstations and the other related to the use of the computerized procedure system.

Concerning the operator workstations, the Design Description for Human Factors Engineering (3.2) contained in the AP600 certified design material (CDM), revision 3, states that the main control room includes two reactor operator workstations and one senior reactor operator workstation, and the remote shutdown room includes one reactor operator workstation. The staff has concluded that this level of detail, specified in the design description and ITAAC, is premature for the level of design description provided in the latest revision of the AP600 standard safety analysis report (SSAR). Specifically, the information provided in the SSAR is for an implementation plan and does not describe the design of the control room or remote shutdown room but rather presents a methodology for designing the facilities. Thus, there is insufficient technical basis to allow the staff to make a safety determination that two reactor operator workstations and one senior reactor operator workstation in the main control room and one operator workstation in the remote shutdown room will provide for safe operation of the AP600 plant under all required conditions of operation. Unless the CDM design description and associated ITAAC is revised to eliminate specifying the number of workstations, the staff cannot accept the Westinghouse Human Factors Engineering ITAAC.

Concerning the use of the computerized procedure system, the staff continues to conclude that reference to such a system in the SSAR is unacceptable. The staff sent a letter on the subject to Westinghouse on June 13, 1997. The letter stated the reasons for the staff conclusions and options that Westinghouse had for correcting the problem. From subsequent conversations with Westinghouse, the staff understands that Westinghouse has decided to add a clarification to the SSAR. If Westinghouse intends to use this option the staff believes that Westinghouse must make it clear in their SSAR that the computerized procedure system is not part of the AP600 design scope that the Nuclear Regulatory Commission is being asked to approve.

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Mr. Nicholas J. Liparulo

- 2 -

September 16, 1997

If you have any questions regarding this matter, you can contact Joseph Sebrosky at (301) 415-1132.

Sincerely,

original signed by: David B. Matthews

Jack W. Roe, Acting Director  
Division of Reactor Program Management  
Office of Nuclear Reactor Regulation

Docket No. 52-003

cc: See next page

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Mr. B. A. McIntyre  
Westinghouse Electric Corporation

Docket No. 52-003  
AP600

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