

December 2, 1997

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

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION RELATED TO INSTRUMENTATION  
AND CONTROLS FOR THE AP600

Dear Mr. Liparulo:

As a result of its review of the June 1992 application for design certification of the AP600, the staff has prepared the final safety evaluation report (FSER) on Section 7.0 of the AP600 Standard Safety Analysis Report (SSAR). The FSER identifies an open item needing resolution by Westinghouse before the staff can complete its review of this SSAR section. This issue was discussed during a November 13, 1997, telephone conference between the NRC staff and Westinghouse representatives. The open item is identified in the enclosure as Q420.127F.

You have requested that portions of the information submitted in the June 1992 application for design certification be exempt from mandatory public disclosure. While the staff has not completed its review of your request in accordance with the requirements of 10 CFR 2.790, that portion of the submitted information is being withheld from public disclosure pending the staff's final determination. The staff concludes that the enclosure does not contain those portions of the information for which exemption is sought. However, the staff will withhold this letter from public disclosure for 30 calendar days from the date of this letter to allow Westinghouse the opportunity to verify the staff's conclusions. If, after that time, you do not request that all or portions of the information in the enclosures be withheld from public disclosure in accordance with 10 CFR 2.790, this letter will be placed in the NRC's Public Document Room.

If you have any questions regarding this matter, you can contact me at (301) 415-1120.

Sincerely,

original signed by:  
Thomas J. Kenyon, Project Manager  
Standardization Project Directorate  
Division of Reactor Program Management  
Office of Nuclear Reactor Regulation

Docket No. 52-003

Enclosure: As stated

cc w/encl: See next page

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Mr. Nicholas J. Liparulo  
Westinghouse Electric Corporation

Docket No. 52-003  
AP600

cc: Mr. B. A. McIntyre  
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Ms. Cindy L. Haag  
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Enclosure to be distributed to the following addressees after the result of the proprietary evaluation is received from Westinghouse:

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\*Docket File \*Enclosure to be held for 30 days

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**OPEN ITEM ON INSTRUMENTATION AND CONTROLS  
FOR THE AP600 DESIGN**

420.127F

On October 21, 1997, Westinghouse submitted a design description which shows the arrangement of differential pressure instruments that will be used to measure the core makeup tank (CMT) level. Ten level channels are installed on each CMT with eight of these being narrow range level switches that are qualified for post-accident monitoring. Four of these narrow range level switches are used to actuate the automatic depressurization system (ADS) stage 1 valves and the other four level switches to actuate ADS stage 4 valves. The remaining two level channels are wide range level indication channels which are used to verify the level during normal operation, but are not qualified for post-accident monitoring.

Because the CMT is full during normal operation and four level switches share one set of level taps, the staff is concerned that a postulated common-mode failure in the level sensing line could make all 4 level switches at each CMT incorrectly stick at the high position without being detected until the next surveillance period. The instrument channel operation test for CMT level is performed every 92 days and the channel calibration is performed every 24 months. A common undetectable failure will inhibit a protective action. Address this concern.

Enclosure