

UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001 March 4, 1996

Mr. Nicholas J. Liparulo Nuclear Safety and Regulatory Activities Westinghouse Electric Corporation P.O. Box 355 Pittsburgh, Pennsylvania 15230

Dear Mr. Liparulo:

SUBJECT: FOLLOWON QUESTIONS ON THE APGOO TESTING PROGRAM

As a result of its review of the June 1992 application for design certification of the AP600, the staff has determined that it needs additional information in order to complete its review. The enclosed questions were developed from review of the PRHR test data and the need for further clarification of the response to RAI 440.247.

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 these followon questions do 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.

These followon questions affect nine or fewer respondents, and therefore is not subject to review by the Office of Management and Budget under P.L. 96-511.

150017

DF031

NRC FILE CENTER COPY

If you have any questions regarding this matter, you can contact me at (301) 415-1141.

Sincerely,

original signed by:

William C. Huffman, Project Manager Standardization Project Directorate Division of Reactor Program Management Office of Nuclear Reactor Regulation

Docket No. 52-003

Enclosure: As stated

cc w/enclosure: See next page

* HOLD FOR 30 DAYS

DISTRIBUTION:

*Central File *PUBLIC RArchitzel

DJackson JSebrosky WDean, EDO

MSeimien, OGC EJordan, T-4 D18

JMoore, 0-15 B18

PDST R/F

Touay WHuffman

TKenyon ALevin, 0-8 E23

RJones, 0-8 E23 TCollins, 0-8 E23

ACRS (11)

DOCUMENT NAME: ADITIONL. RAI

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	PM: PDST: DRPM	SC:SRXB:DSSA	SC:PDST:DRPM	
NAME	WHuffman: spo	TCollins (2)	RArchitzel Sim For	
DATE	3/4/96	3/4/96	3/4/96	

Mr. Nicholas J. Liparulo Westinghouse Electric Corporation

cc: Mr. B. A. McIntyre
Advanced Plant Safety & Licensing
Westinghouse Electric Corporation
Energy Systems Business Unit
P.O. Box 355
Pittsburgh, PA 15230

Mr. M. D. Beaumont
Nuclear and Advanced Technology Division
Westinghouse Electric Corporation
One Montrose Metro
11921 Rockville Pike
Suite 350
Rockville, MD 20852

Docket No. 52-003 AP600

Mr. John C. Butler Advanced Plant Safety & Licensing Westinghouse Electric Corporation Energy Systems Business Unit Box 355 Pittsburgh, PA 15230

Mr. S. M. Modro Nuclear Systems Analysis Technologies Lockheed Idaho Technologies Company Post Office Box 1625 Idaho Falls, ID 83415

Enclosure to be distributed to the following addressees after the result of the proprietary evaluation is received from Westinghouse:

Mr. Ronald Simard, Director Advanced Reactor Programs Nuclear Energy Institute 1776 Eye Street, N.W. Suite 300 Washington, DC 20006-3706

Mr. James E. Quinn, Projects Manager LMR and SBWR Programs GE Nuclear Energy 175 Curtner Avenue, M/C 165 San Jose, CA 95125

Barton Z. Cowan, Esq. Eckert Seamans Cherin & Mellott 600 Grant Street 42nd Floor Pittsburgh, PA 15219

Mr. Frank A. Ross U.S. Department of Energy, NE-42 Office of LWR Safety and Technology 19901 Germantown Road Germantown, MD 20874

Mr. Ed Rodwell, Manager PWR Design Certification Electric Power Research Institute 3412 Hillview Avenue Palo Alto, CA 94303

Mr. Charles Thompson, Nuclear Engineer AP600 Certification U.S. Department of Energy NE-451 Washington, DC 2058 STS, Inc. Attn: Lynn Connor Suite 610 3 Metro Center Bethesda, MD 20814

Mr. John E. Leatherman, Manager SBWR Design Certification GE Nuclear Energy, M/C 781 San Jose, CA 95125

Mr. Sterling Franks U.S. Department of Energy NE-42 Washington, DC 20585

REQUEST FOR ADDITIONAL INFORMATION CONCERNING AP600 TESTING PROGRAM

- In light of the recently discovered problems with data conversion software used for the PRHR Test Program, the staff requests that Westinghouse review data conversion software for the other programs in the design certification testing program, to ensure that conversions from the instruments' electronic output to engineering units are done correctly. The primary concern here is not so much with instruments like thermocouples, which generally have relatively simple conversions from millivolts to engineering units, but rather with instruments that require complicated data conversion algorithms or that require correction factors due to calibration at conditions other than those used in the test, such as flow measurements derived from pressure drops (e.g., orifice meters or venturis), which may require fluid density corrections. Please provide a response that either (1) verifies that the software has been reviewed and is correct, or (2) identifies any errors found in the review and commits to correct the conversion software and supply corrected engineering units data.
- 440.579 The staff requires accurate information about pipe sizes and schedules for code modeling purposes. In RAI 440.247, the staff requested that Westinghouse identify all Schedule 140 piping in the AP600. The response to that RAI indicated that only the 20-inch NRHR inlet line was Schedule 140. However, AP600 drawings appear to indicate substantially more piping is Schedule 140, including:
 - a. Drawings PXS-PLW-010 through -028, Rev. 0 (dated 2/28/95) show most of the DVI lines as being pipe class BTA, which has been described as Sched. 140 (the NRHR line identified in the original response is class BTA).
 - b. Drawings PXS-PLW-035 and -036, Rev. 0 (2/17/95) show the PRHR and ADS-4 inlet lines as both class BTA and Sched. 140. The PRHR outlet lines are shown as the same pipe class and schedule on drawings PXS-PLW-043 and -044, Rev. 0 (2/16/95).
 - c. Drawings PXS-PLW-054, -064, and -065, Rev. 0 (2/27/95) show the pressure balance lines as Sched. 140.
 - d. SSAR Fig. 5.1-5 (in Rev. 4 to the SSAR) shows the pressurizer surge line, pressurizer spray line, and ADS 1-3 inlet lines as pipe class BTA.

Please review the response to RAI 440.247 and the indicated drawings, and identify the AP600 piping that is currently designated as Schedule 140. If the above-noted drawings have been superseded, and the pipe classes and/or schedules have been changed, please provide copies of the current revisions that show correct pipe classes and schedules.