

Docket File
52003



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

February 19, 1997

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: ANALYSES TO SUPPORT AP600 PASSIVE RESIDUAL HEAT REMOVAL (PRHR) HEAT EXCHANGER HEAT TRANSFER CORRELATIONS

Dear Mr. Liparulo:

In a Nuclear Regulatory Commission (NRC) letter to you on January 16, 1997, the staff noted the need for additional information to support the use of the heat transfer correlations employed by Westinghouse to model the performance of the AP600 PRHR heat exchanger. The information requested consists of comparison of your PRHR heat transfer correlations with data obtained using a "C"-tube heat exchanger. In the January 16, 1997 letter, we also stated that we would provide you data from the NRC's confirmatory tests at the ROSA/AP600 test facility, which were to be used to validate your models.

Upon further consideration, the staff has concluded that it is inappropriate to mandate the source of data for Westinghouse to use in this effort. It is incumbent upon Westinghouse, as the AP600 design certification applicant, to determine the source and specifics of the data used to confirm or validate AP600 design characteristics and analytical models. If you decide to pursue use of the NRC's confirmatory tests at the ROSA/AP600 test facility, we are willing to provide you with data from that facility.

The staff reiterates that additional analyses are needed to support the use of the heat transfer correlations utilized to evaluate the performance of the AP600 PRHR heat exchanger. The 3-tube PRHR test data comprise an insufficient basis to allow the staff to confirm Westinghouse's conclusions. Additional data should be obtained by Westinghouse from testing in a bundle geometry prototypic of the AP600 "C"-tube heat exchanger, and which spans the range of operating and accident conditions anticipated in the AP600 design. The selection of data should be justified, and provided to the staff for review and approval prior to performing the analyses.

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Mr. Nicholas J. Liparulo

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February 19, 1997

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

cc: See next page

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Mr. Nicholas J. Liparulo
Westinghouse Electric Corporation

Docket No. 52-003
AP600

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