



Westinghouse Owners Group

Domestic Utilities

Alexandria Power
American Electric Power
California Power & Light
Commonwealth Edison
Consolidated Edison
Duke Power
Edison Power

Georgia Power
Florida Power & Light
Houston Lighting & Power
New York Power Authority
Northwest Utilities
Northwest States Power
Pacific Gas & Electric

Portland General Electric
Public Service Electric & Gas
Public Service of New Hampshire
Rochester Gas & Electric
South Carolina Electric & Gas
Southern California Edison
Tennessee Valley Authority

Utah Electric
Union Electric
Virginia Power
Washington Electric Power
Washington Public Service
West Coast Nuclear
Yonkers Atomic Electric

Foreign Utilities

Belgian Utilities
ENEL
Korea Electric Power
Korea Electric
Kansai Electric
Swedish Utilities
Swedish State Power Board
Toscan Power

OG-88-41

November 21, 1988

Mr. Marvin W. Hodges, Reactor Systems Branch Chief
Division of Engineering & System Technology
U.S. Nuclear Regulatory Commission
Mail Station PI-137
Washington, D.C. 20555

Subject: Westinghouse Owners Group
Information Transmittal of WCAP-11916,
"Loss of RHRs Cooling While the RCS is Partially Filled"

Dear Mr. Hodges:

Enclosed for your information and use are three copies of WCAP-11916, Rev. 0, "Loss of RHRs Cooling While the RCS is Partially Filled", dated July 1988. This report is the result of the Westinghouse Owners Group effort originally to provide each member utility with information which they could use in responding to the NRC Generic Letter 87-12, "Loss of Residual Heat Removal (RHR) While the Reactor Coolant System (RCS) is Partially Filled". The report specifically addressed Item 5 of GL-87-12. It will also be useful in responding to the more recent NRC Generic Letter 88-17, "Loss of Decay Heat Removal", which superceded GL-87-12.

The report describes the results of fluid systems evaluations performed to provide analytical information concerning the phenomena of air ingestion into the Residual Heat Removal System (RHRs) during mid-loop operations. In addition, thermal-hydraulic computer analyses were performed to predict Reactor Coolant System behavior following loss of RHR Cooling during mid-loop operations.

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This report provided the basis for a significant portion of the technical information that was presented at the Mid-Loop Operations Guidance Workshop held on September 21 and 22, 1988 in Pittsburgh. I wish to personally thank you and Warren Lyon for participating and helping in making it a successful workshop.

Very truly yours,



Roger A. Newton, Chairman
Westinghouse Owners Group

RAH/dac

enclosure

cc: Thomas T. Martin, NRC
Charles Trammell, NRC
Warren Lyon, NRC
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J.B. George
Steering Committee
Analysis Subcommittee Representatives
J.A. Triggiani

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