

OG-122

May 2, 1984

Mr. Richard H. Vollmer, Director Division of Engineering Office of Nuclear Reactor Regulation U.S. Nuclear Regulatory Commission Phillips Building 7920 Norfolk Avenue Bethesda, Maryland 20014

Subject: Westinghouse Owners Group Transmittal of WCAP 10541, "Westinghouse Reactor Coolant Pump Seal Performance Following a Loss of All AC Power"

Dear Mr. Vollmer:

8405290283 840502 PDR TOPRP EMVWEST

R

PDR

Enclosed are twenty five (25) copies of WCAP 10541 entitled, "Westinghouse Reactor Coolant Pump Seal Performance Following a Loss of All AC Power" (Proprietary). This report presents the expected generic performance of the Westinghouse RCP Seals following a complete loss of seal cooling. This report demonstrates that the RCP seal leakage following the postulated event results in an acceptable tire to core uncovery and satisfies the current proposed acceptance criteria for the Station Blackout event.

Following are the major conclusions of the Westinghouse analysis.

- The RCP seal leakage following the postulated Loss of Power Event is 1. calculated to be 21.1 GPM per pump.
- The calculated leakage will not lead to core uncovery before 16 2. hours and allows adequate time to restore a station AC power supply and recover from the event.
- The RCP thermal/stress and seal leakage analyses results show that 3. most secondary seals will not be exposed to conditions as severe as full reactor coolant system temperatures and delta pressures.
- Two-phase flow conditions in the RCP seal package have been 4. addressed in the seal leakage analysis and acceptable seal performance is calculated.

2222 1/25 Attached See Duit

411 Fayetteville Street . P. O. Box 1551 . Ra'eigh, N. C. 27602

Mr. Richard H. Vollmer

OG-122 May 2, 1984

5. The analysis is based on the assumption that the secondary seals (O-rings and channel-seals) will maintain their functional integrity. The assumption will be verified by testing the secondary seals under conditions predicted by the analysis.

Also enclosed are:

- 1. One (1) Application for Withholding (CAW-84-37) (Non-Proprietary).
- 2. Original Affidavit CAW-84-37 (Non-Proprietary).

As this submittal contains information proprietary to Westinghouse Electric Corporation, it is supported by an affidavit signed by Westinghouse, the owners of the information. The affidavit sets forth the basis on which the information may be withheld from public disclosure by the Commission and addresses with specificity the considerations listed in paragraph (b) (4) of Section 2.790 of the Commission's regulations.

Accordingly, it is respectfully requested that the information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10CFR Section 2.790 of the Commission's regulations. Correspondence with respect to the proprietary aspects of this application for withholding or the supporting Westinghouse affidavit should reference CAW-84-37 and should be addressed to R. A. Wiesemann, Manager, Regulatory and Legislative Affairs, Westinghouse Electric Corporation, P.O. Box 355, Pittsburgh, PA 15230.

ruly yours.

J. J. Sheppard, Chairman Westinghouse Owners Group

Enclosure

cc: V. S. Noonan
J. E. Jackson
WOG Representatives
WOG Analysis Subcommittee

2182g:12