

June 24, 1985

Docket Nos. 50-275/323/498

MEMORANDUM FOR: Chairman Palladino  
Commissioner Roberts  
Commissioner Asselstine  
Commissioner Bernthal  
Commissioner Zech

FROM: Hugh L. Thompson, Jr., Director  
Division of Licensing  
Office of Nuclear Reactor Regulation

SUBJECT: BOARD NOTIFICATION (BN-85-064 ) REGARDING  
WESTINGHOUSE REACTOR COOLANT PUMP SEALS

In accordance with the procedures for board notification, the following information is being transmitted directly to the Commission. The appropriate boards are being notified by copy of this memorandum. This information is applicable to Diablo Canyon and South Texas, which are presently before the Commission.

This recent information updates the information provided in BN-83-139, BN-84-076 and BN-84-123. The results of the AECL tests on the reactor coolant pump secondary seal under station blackout conditions are provided in the enclosed report, NUREG/CR-4077. These tests show deformation and failures of the seal materials presently in use in the Westinghouse pumps. Subsequent to these tests and before issuance of the NUREG/CR-4077, the Westinghouse Owners Group (WOG) submitted a letter dated January 3, 1984 (inadvertently dated 1984; actually issued in 1985) which acknowledges the possible failure of the secondary O-ring material used in W pumps. This letter is also enclosed.

In the WOG letter, reference is made to the ETEC analysis which estimates 20 gpm leakage under the condition of loss of all cooling. This analysis is correct with no seal failure; the ETEC analysis estimates 422 gpm leakage with seal failure. The WOG letter also addresses the development of a replacement program of the O-rings to be implemented during normal maintenance replacement schedules. The French tests mentioned in the WOG letter have been completed and the results of the tests, although not exactly prototypical of the U.S. seals, are expected to be made available to you in the near future.

Original signed by  
Frank J. Miraglia

Hugh L. Thompson, Jr., Director  
Division of Licensing  
Office of Nuclear Reactor Regulation

Enclosures:  
As stated

cc w/enclosures:  
See next page

\*See previous white for concurrences

ORB#:DL\*    ORB#:DL\*  
CParrish    DWigginton;ps  
6/19/85    6/19/85

BC-ORB#:DL\*  
SVarga  
6/19/85

AD:OR:DL\*  
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Hugh L. Thompson, Jr., Director  
Division of Licensing  
Office of Nuclear Reactor Regulation

Enclosure:  
As stated

cc w/enclosure:

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CParrish *CP* DWigginton;psj *psj* SVarga *SV*

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*[Signature]*  
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*R. W. Brady*  
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is given in the following

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The Commission

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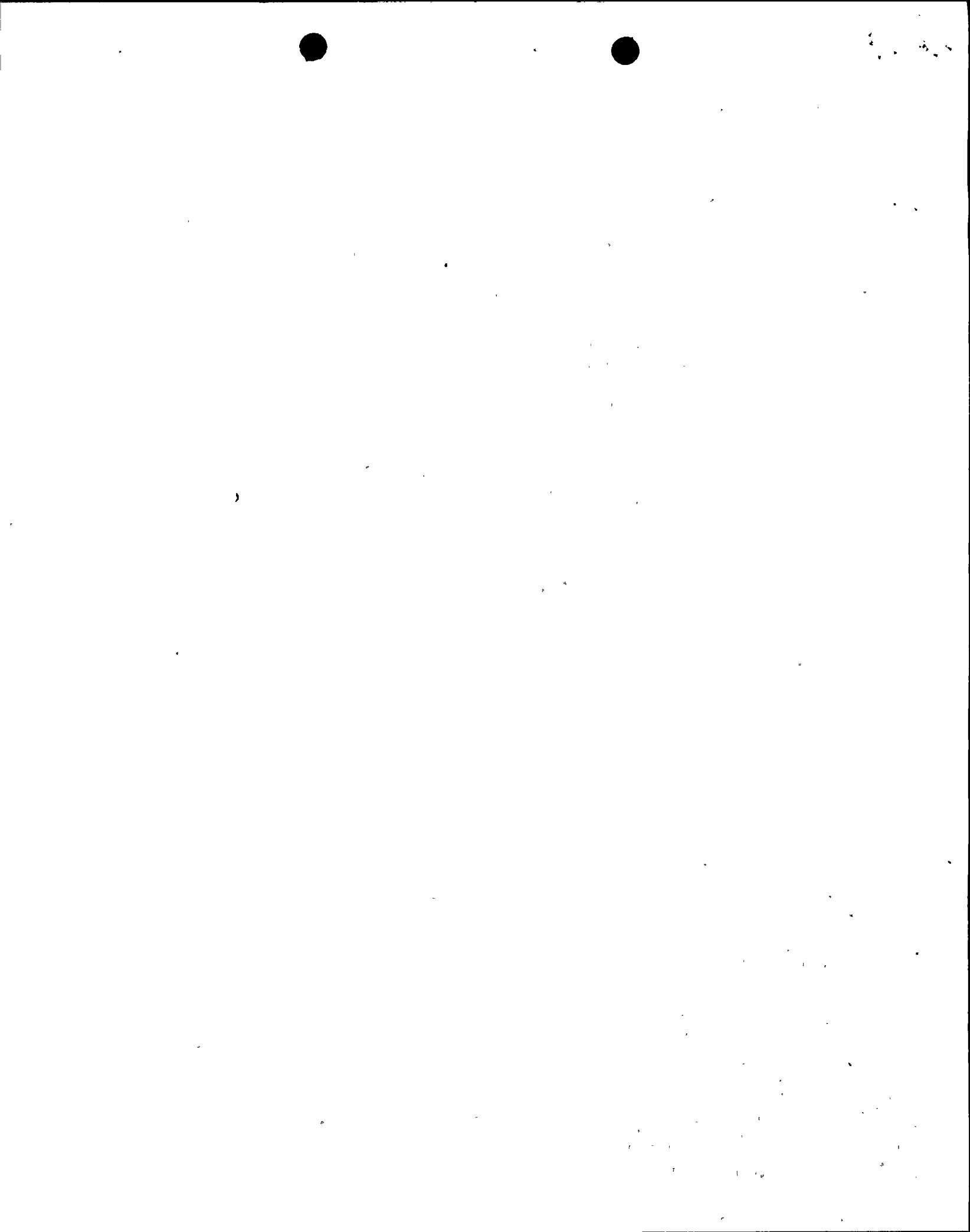
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Seabrook (Hoyt, Harbour, Luebke)  
Shearon Harris (Kelly, Bright, Carpenter)  
South Texas (Bechhoefer, Lamb, Shon)  
Vogtle (Margulies, Linenberger, Paris)

Atomic Safety and Licensing Appeal Boards For:

Catawba (Rosenthal, Moore, Wilber)  
Diablo Canyon (Moore, Johnson)  
Shearon Harris (Moore, Gotchy, Wilber)



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