



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

MAY 24 1985

MEMORANDUM FOR: Hugh L. Thompson, Director  
Division of Licensing

FROM: James P. Knight, Acting Director  
Division of Engineering

SUBJECT: BOARD NOTIFICATION REGARDING REPORT ON REACTOR  
COOLANT PUMP SHAFT SEAL BEHAVIOR DURING STATION  
BLACKOUT (APRIL 1985 NUREG/CR-4077)

References: 1) Memo from D. Eisenhut to the Commission dated  
September 21, 1983, Board Notification Regarding  
Westinghouse Reactor Coolant Pump Seals (BN-83-139)

2) Memo from<sup>2</sup>D. Eisenhut to the Commission dated  
April 19, 1984, Board Notification Regarding  
Westinghouse Reactor Coolant Pump Seals (BN-84-076)

3) Memo from D. Eisenhut to the Commission dated  
June 29, 1984, Board Notification Regarding  
Westinghouse Reactor Coolant Pump Seals (BN-84-123)

Board Notification BN-84-076 made the boards aware of the reactor coolant pump (RCP) seal test program at Atomic Energy of Canada Limited (AECL) and the preliminary test results which indicated failures of certain secondary seal materials at conditions which could be expected to occur during extended station blackout. Board notifications BN-83-139 regarding results from a Westinghouse test program and BN-84-123 regarding French RCP seal testing, provided information from other sources regarding possible reactor coolant pump seal failures.

The RCP seal test program at AECL is now complete and the final results have been published in NUREG/CR-4077, Reactor Coolant Pump Shaft Seal Behavior During Station Blackout, dated April 1985. The report suggests several failure modes which could result in large leakage through RCP seals during extended station blackout. The report gives detailed information on the test program and the implications of the results, including identification of secondary seals in present use which may be likely to fail in a station blackout.

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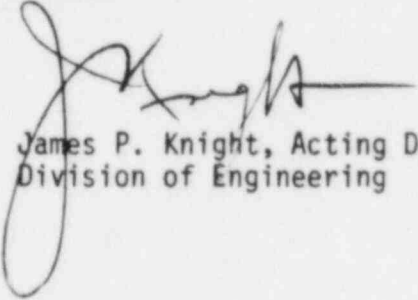
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The Westinghouse Owners Group (WOG) has acknowledged the possible failure of a secondary O-ring seal material (Parker E515-80) used in Westinghouse RCP seal assemblies and has committed to the replacement of the O-rings presently used in the RCPs of Westinghouse plants. This commitment is outlined in a letter (OG-142) from J. J. Sheppard, Chairman of WOG, to Harold Denton dated January 3, 1984.

We recommend board notification of this additional information as it relates to the previous referenced board notifications and industry wide notification through an IE bulletin or information notices.



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Enclosures:

1. NUREG/CR-4077
2. WOG Letter OG-142