

SEP 00 1985

Dr. A. David Rossin  
Director  
Nuclear Safety Analysis Center  
3412 Hillview Avenue  
P.O. Box 10412  
Palo Alto, California 94303

Dear Dr. Rossin:

Subject: Case Study Report -- Overpressurization of Emergency Core  
Cooling Systems in Boiling Water Reactors

Following resolution of peer review comments from NSAC, INPO and various NRC offices, the Office for Analysis and Evaluation of Operational Data has finalized its case study of operational events involving an actual or potential overpressurization of an emergency core cooling system in boiling water reactors. We have enclosed a copy of our final report for your information and use as you may deem appropriate.

A total of eight events, each entailing the failure of a testable isolation check valve on the injection line of an emergency core cooling system, were identified and evaluated in the study. Five of the eight events involved an additional failure of the second and final isolation barrier -- the inadvertent opening of a normally closed motor-operated injection valve. Four of these five events occurred during power operation, thus leading to an actual overpressurization of an emergency core cooling system. Collectively, these operational events indicate a trend with serious safety implications, that the likelihood of an interfacing loss-of-coolant accident between the reactor coolant system and an emergency core cooling system is higher by two to several orders of magnitude than had been previously assessed.

The enclosed case study report contains several recommendations aimed at addressing the root causes of the reported multiple failures. These recommendations are currently being reviewed by the Nuclear Regulatory Commission staff.

A copy of the final case study report and this letter are being placed in the Public Document Room at 1717 H Street, N.W., Washington, D.C. 20555.

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Dr. A. David Rossin

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If you have any questions regarding this report, please feel free to contact Peter Lam of my staff. Dr. Lam can be reached at (301) 492-4438.

Sincerely,

Original Signed by

C. J. Heltemes, Jr.

C. J. Heltemes, Jr., Director  
Office for Analysis and Evaluation  
of Operational Data

Enclosure:  
As stated

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