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February 27, 1981

50-247

MEMORANDUM FOR: Darrell G. Eisenhut, Director, Division of Licensing, NRR

FROM: Thomas E. Murley, Director, Division of Safety Technology, NRR

SUBJECT: SERVICE WATER FLOODING, INDIAN POINT UNIT 2 CONTAINMENT

Reference: Memorandum, D. G. Eisenhut to Division Directors, "Operating Reactor Event Memorandum No. 80-27; Service Water Flooding, Indian Point Unit 2 Containment," dated December 23, 1980.

In Table 1 of the referenced memorandum the Safety Program Evaluation Branch (SPEB) was requested to review the adequacy of present NRC requirements for: system leakage detection and identification (RCS and non-RCS leakage) in containment; system isolation capability; system leakage testing; and reactor vessel flooding analyses. This was to be part of an NRR generic study of the adequacy of NRC requirements concerning system leakage.

Based on a brief review of the information presented in the referenced memorandum and in the three enclosed memoranda, the SPEB has concluded that the current requirements and licensing review procedures appear inadequate regarding detection of leakage from non-RCS sources within the containment. Except for leakage from the reactor coolant system, the concerns stated above are not included within the staff's current requirements. Additional requirements for detection of non-RCS leakage should be developed for both new license applications and plants that already have been issued an operating license.

However, the SPEB is not the correct group to develop such requirements. It is the responsibility of the SPEB to evaluate the adequacy of the proposed requirements in terms of such factors as cost-benefit analysis, impact on the NRC-utilities-public, and possible adverse consequences. In light of this primary responsibility of the SPEB, they could not perform an impartial review of new requirements that they had developed. Therefore, the branches in the Divisions of Licensing, Systems Integration, Human Factors Safety and Engineering that have responsibility in these areas of concern should be the ones to develop any proposed changes in the requirements of regulations.

It is our understanding that significant revisions to SRP 5.2.5, "Reactor Coolant Pressure Boundary Leakage Detection," are being considered for inclusion in the forthcoming revision to the SRP. New requirements proposed related to non-RCS leakage should take advantage of existing or proposed new requirements of SRP 5.2.5 and should be commensurate with the safety significance of leakage from systems other than the RCS.

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Darrell G. Eisenhower

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For your information, OEEB is currently investigating possible use of television cameras inside containment. One specific use of such devices could be for detection of significant leakage from non-RCS components. We will provide the results of this study to you and other appropriate divisions when completed, probably within two months.

Thomas E. Murley, Director  
Division of Safety Technology  
Office of Nuclear Reactor Regulation

Enclosures:

1. Memorandum, H. W. Woods to E. L. Jordan, "Restart of Indian Point Unit 3 Subsequent to Indian Point Unit 2 Containment Flooding Event Discovered October 17, 1980," dated November 13, 1980.
2. Memorandum, G. C. Lainas to D. G. Eisenhower, "Indian Point 2: Licensing Basis for Reactor Pressure Vessel and Containment Fan Cooler System-FSAR and Current NRC Requirements," dated October 29, 1980.
3. Note, L. S. Rubenstein to G. C. Lainas, "IP-2 Event vs. Current Licensing Criteria," dated November 7, 1980.

ccs w/enclosures:

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