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DMB

July 19, 1984
EF2-69288

Mr. James G. Keppler
Regional Administrator
Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

Reference: (1) Fermi 2
NRC Docket No. 50-341
(2) Letter, W. H. Jens to J. G. Keppler,
April 30, 1984, EF2-68535

Subject: Interim Report of 10CFR50.55(e) Item 121
"Water Found in the HPCI Lube Oil Reservoir"

This letter provides additional information about 10CFR50.55(e), Item 121, Water Found in the HPCI Lube Oil Reservoir. Item 121 was originally reported as a potential deficiency on March 30, 1984, and was documented in Reference (2). That letter (Reference 2) was considered a final report. A recurrence of this problem was reported by telephone on June 19, 1984.

Description of Deficiency

On March 27, 1984, during a routine inspection of the HPCI system, it was noticed that the HPCI lube oil system reservoir level was high. Visual examination of the lube oil system reservoir revealed what appeared to be approximately 2 inches of water at the bottom of the reservoir. A sample of the liquid was taken and an analysis confirmed the liquid as high purity water. Nonconformance Report (NCR) No. 84-0443 documents this condition. An investigation revealed that the drain valves on the HPCI main pump bearing drain troughs had been closed, which allowed water to rise in the bearing drain troughs and enter the lube oil system at the HPCI main pump bearing.

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Corrective action, as described in Reference (2), included opening the HPCI main pump drain bearing trough drain valves and sealing these valves in the open position.

Subsequently, on June 12, 1984, approximately 4 inches of water was observed in the HPCI lube oil system reservoir. A Nonconformance Report (NCR) No. 84-0872 was written to document the nonconforming condition.

Tests and inspections were performed to determine the cause of the water intrusion. These tests and inspections did not reveal any leakage paths through the components of the HPCI lube oil system, except for the possibility of water mixing with the lube oil at the HPCI main pump bearings. However, it does not appear that the pump casing was filled with water at any time since the last report.

Analysis of the Safety Implications

If the water contamination in the oil reservoir had gone undetected this condition could have rendered the HPCI inoperative. The HPCI system is an emergency core cooling system, redundant to the automatic depressurization system, and is required to function to mitigate a small break loss of coolant accident.

Corrective Action

Since there is no conclusive evidence to determine the source of such a large amount of water contamination, we are monitoring the HPCI lube oil system oil reservoir. This monitoring will continue while we analyze for the cause.

Another report on this item, either interim or final, will be sent to you when further information is available. If you have questions concerning this matter, please contact Mr. Lewis P. Bregni, (313) 586-5083.

Sincerely,

Wayne H. Jens

cc: P. M. Byron
R. C. DeYoung
R. C. Knop

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