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ILLINOIS POWER COMPANY



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CLINTON POWER STATION, P.O. BOX 678, CLINTON, ILLINOIS 61727  
July 9, 1984

Docket No. 50-461

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

Subject: Potential 10CFR50.55(e) Deficiency 55-84-13:  
Suppression Pool Temperature Monitoring System

Dear Mr. Keppler:

On June 7, 1984, Illinois Power Company notified Mr. P. Pelke, NRC Region III (Ref. IP memorandum Y-21918 dated June 7, 1984), of a potentially reportable deficiency concerning the Suppression Pool Temperature Monitoring System. Our investigation of this issue is continuing, and this letter is submitted as an interim report in accordance with the requirements of 10CFR50.55(e)(3).

Statement of Potentially Reportable Deficiency/Background

The Suppression Pool Temperature Monitoring System (SPTMS), as designed, meets the GE design requirements for "Normal Pool Monitoring," but does not meet the GE recommendation for providing a "Post-LOCA Pool Monitoring" capability.

The twenty (20) RTD units (16 safety related, 4 non-safety related) that comprise the SPTMS are physically located with the temperature sensing tip at Elevation 730'6", which permits temperature monitoring even at low water level (LWL) alarm set point of Elevation 730'11"; but, in a post-LOCA condition, the RTDs could be uncovered resulting in loss of temperature monitoring. If the Suppression Pool water level is drawn down below the level of the temperature sensors, the Operator could be misled by erroneous readings and required safety actions could be delayed resulting in excessive Suppression Pool temperatures and subsequent damage to the Containment and/or containment structures.

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Investigation Results/Corrective Action

Illinois Power has prepared and is implementing an investigation plan to determine the extent of this problem at Clinton Power Station (CPS). The investigation plan includes:

1. The Architect/Engineer Sargent & Lundy (S&L) will perform a review/evaluation of the current design for adequacy to meet design basis accidents which could result in the uncovering of the suppression pool temperature sensors. The results of this evaluation will be submitted to Illinois Power for review.
2. Nuclear Station Engineering (NSED) will review the results of the S&L evaluation to determine the significance to safety of operations of the Clinton Power Station.
3. Appropriate corrective action necessary to resolve identified deficiencies and preclude recurrence will be addressed once the root causes have been identified.

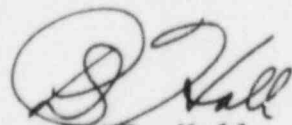
To date NSED has directed S&L to develop and issue a redesign of the suppression pool temperature monitoring system to preclude the possibility that the temperature sensing elements would be uncovered during a design bases accident.

Safety Implications/Significance

Illinois Power Company's investigation of this potentially reportable deficiency is continuing. The safety implications and significance of the issue will be assessed after further background information is evaluated. It is anticipated that approximately ninety (90) days will be needed to complete our investigation and to file a final report on the matter.

We trust that this interim report provides you sufficient background information to perform a general assessment of this potentially reportable deficiency and adequately describes our overall approach to resolve the problem.

Sincerely yours,



D. P. Hall  
Vice President

RLC/lag

cc: NRC Resident Office  
Director, Office of I&E, US NRC, Washington, DC 20555  
Illinois Department of Nuclear Safety  
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