

50-352

# PHILADELPHIA ELECTRIC COMPANY

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January 3, 1984

JOHN S. KEMPER  
VICE-PRESIDENT  
ENGINEERING AND RESEARCH

Mr. Thomas E. Murley, Director  
United States Nuclear Regulatory Commission  
Office of Inspection and Enforcement, Region I  
631 Park Avenue  
King of Prussia, PA 19406

Subject: Significant Deficiency Report #85  
Final Report on Possible Operational Deficiency in  
Reactor Water Cleanup System Isolation Valve  
Control Circuit  
Limerick Generating Station, Units 1 and 2  
NRC Construction Permits Nos. CPPR-106 & 107

Reference: (1) Telecon of September 12, 1983, G. R. Hutt  
(PECO) to W. Baunack (USNRC)  
(2) Interim report of October 11, 1983  
(3) Interim report of November 18, 1983

File: QUAL 2-10-2 (SDR #85)

Dear Mr. Murley:

In compliance with 10CFR50.55(e), this is our final report on the subject potential deficiency. The referenced reports were previously submitted to your office by PECO.

We have completed our evaluation and have determined that the subject condition is not a design, QA or hardware deficiency and, therefore, it is not reportable per 10CFR50.55(e).

The potential deficiency was originally identified during preoperational testing of several motor operated containment isolation valves. It was found during this testing that when an automatic isolation signal was simulated while the valve was traveling in the open direction, the 480 volt circuit breaker which feeds the valve operator would trip on high current. We have determined that this finding is of no consequence as discussed below.

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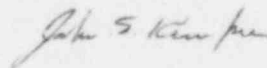
All motor operated containment isolation valves at Limerick which receive an automatic isolation signal have the same basic control circuit. When the isolation signal is received, the valve close circuit is energized and the open circuit is blocked by separate contacts from a common relay. The blocking contact in the open circuit prevents manual reopening of the valve until the isolation signal is reset. This standard BWR design feature creates a condition of susceptibility to the overcurrent trip situation described above.

Motor operated containment isolation valves are exercised (stroked) quarterly per the LGS Technical Specifications and the requirements of ASME Section XI. The overcurrent trip situation can only occur when an automatic motor-operated containment isolation valve is being exercised and a containment isolation signal is received during valve travel in the open direction. Because only one containment isolation valve in a particular line is tested at one time, the redundant isolation features described in FSAR Section 6.2.4. will ensure containment integrity in the unlikely event that isolation is required during valve opening travel.

Therefore, tripping of the valve circuit breaker is within the design basis and does not represent a design or hardware deficiency. Testing of the valve circuits in this mode has been discontinued.

No further action on this item is planned at this time.

Sincerely,



Copy to: Director of Inspection and Enforcement  
United States Nuclear Regulatory Commission  
Washington, D.C. 20555

S. K. Chaudhary, Resident NRC Inspector (Limerick)

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