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NUCLEAR ENGINEERING & SERVICES DEPARTMENT

February 14, 1992

Docket Nos. 50-352  
50-353

License Nos. NPF-39  
NPF-85

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

SUBJECT: Limerick Generating Station, Units 1 and 2  
10CFR50.63, "Loss of All Alternating Current"  
Response to NRC Concerns

This letter provides additional clarifying information as discussed during a telephone conversation between representatives of the NRC and Philadelphia Electric Company (PECo) on February 3, 1992. This telephone conversation was in regard to the NRC's review of additional information previously provided by PECo in a letter dated September 4, 1991 as requested by the NRC by letter dated June 3, 1991 which forwarded the NRC's Safety Evaluation (SE) and supporting Technical Evaluation Report (TER) concerning PECo's responses to 10CFR50.63, "Loss of All Alternating Current," for Limerick Generating Station (LGS), Units 1 and 2. During the telephone conversation, the NRC identified concerns with respect to the Main Control Room (MCR) maximum initial temperature, opening of equipment cabinet doors within 30 minutes from the onset of a Station Blackout (SBO), the revised Reactor Core Isolation Cooling (RCIC) room maximum temperature, and the inputs and assumptions for the revised SBO calculations described in the September 4, 1991 submittal.

With respect to the initial MCR temperature used in the heat-up calculations, the NRC expressed a concern that PECo should establish administrative procedures to ensure that during normal operation, the MCR temperature will not exceed the initial room temperature used in the heat-up calculation. Such procedures already exist. The heat-up calculation assumes an initial temperature of 83°F. The plant daily

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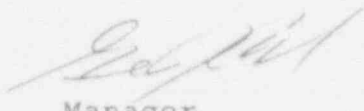
surveillance log, Surveillance Test (ST) Procedure ST-6-107-590(1)-0-1-2, requires that the average MCR temperature be 78°F or less. If that temperature is exceeded, Off-Normal (ON) Procedure ON-115, "Loss of Control Enclosure Cooling," is entered. This procedure provides direction to reduce temperature in the MCR and Auxiliary Equipment Room (AER) to below 78°F. These existing procedures are sufficient to provide reasonable assurance that the 83°F initial MCR temperature assumed in the heat-up calculation is conservative.

With respect to the peak calculated temperatures for the MCR, RCIC room, and AER, the NRC expressed a concern that cabinet doors in these rooms should be opened within 30 minutes from the onset of an SBO. It is PECO's position that this time is better spent in re-acquiring room ventilation. An SBO event in Unit 2 will not affect MCR ventilation since the common MCR ventilation system is supplied power from Unit 1. Therefore, opening cabinet doors for this event is not necessary. An SBO event in Unit 1 will cause loss of the common MCR ventilation system. However, the use of an existing procedure to cross-tie the Unit 1 buses to the excess Unit 2 diesel generation capacity, which is achievable within 30 minutes, will ensure that ventilation for these areas is reestablished. Therefore, opening the cabinet doors is again unnecessary. The calculated maximum temperatures for these rooms during an SBO, together with the expected room-to-cabinet temperature differentials of less than 10°F allow us to conclude that a blanket procedure to open cabinet doors within 30 minutes of an SBO is unnecessary.

As identified by the NRC, our September 4, 1991 submittal did not provide the revised calculated peak temperature for the RCIC room. This temperature was inadvertently omitted. The peak RCIC room temperature, occurring 4 hours after the onset of the SBO event is 142°F.

As discussed during the telephone conversation, the revised heat-up calculations for the MCR, RCIC room, and AER were performed in an effort to justify a minimization of required operator actions following an SBO event. These calculations utilize methods, inputs, and assumptions that are all appropriate for their intended purpose. These calculations are maintained by PECO in our SBO files, and are available for NRC review.

If you have any further questions or require additional information, please do not hesitate to contact us.

  
Manager  
Licensing Section

Attachments

cc: T. T. Martin, Administrator, Region I, USNRC w/attachments  
T. J. Kenny, USNRC Senior Resident Inspector, LGS w/attachments