

PHILADELPHIA ELECTRIC COMPANY

NUCLEAR GROUP HEADQUARTERS

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October 5, 1992

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Docket No. 50-353

License No. NPF-85

NUCLEAR SERVICES DEPARTMENT

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

Subject: Limerick Generating Station, Unit 2  
Follow-Up Written Request for a Temporary  
Waiver of Compliance by the Office of  
Nuclear Reactor Regulation - Additional Information

Gentlemen:

Our letter dated October 2, 1992 provided our written follow-up of our verbal request for a temporary waiver of compliance made, and approved by the NRC, on October 1, 1992.

That request for a temporary waiver of compliance for Limerick Generating Station (LGS), Unit 2, involved a temporary change of the acceptance criterion of 10,000 gpm through the Residual Heat Removal (RHR) heat exchanger specified in Technical Specifications (TS) Surveillance Requirement (SR) 4.6.3.2.b. The alternate acceptance criterion proposed was a RHR pump flow of 10,000 gpm through the flow path for the Suppression Pool Cooling (SPC) mode of the RHR system, including leakage through the RHR heat exchanger bypass valve. This alternate acceptance criterion had previously been submitted to the NRC as a TS change request in our letter dated August 11, 1992. As a result of discussions with J. Shea, NRC, on October 2, 1992, this letter provides additional information concerning the determination of the minimum RHR flow through the heat exchanger to support our request for a temporary waiver of compliance.

Heat transfer testing of the RHR heat exchangers is performed as a result of implementation of the commitments made in our letter dated January 29, 1992, responding to NRC Generic Letter 89-13, "Service Water System Problems Affecting Safety - Related Equipment." This testing demonstrates that the design heat removal requirements for the RHR heat exchangers are met by conducting an integrated performance test of the RHR and RHR Service Water (RHRSW) systems. Results from previous performance of these tests have shown that the required heat transfer can be accomplished with less than a total RHR pump flow of 10,000 gpm passing through the RHR heat exchanger when the RHR system is operated in the SPC mode. Calculations have shown that a RHR system flow rate of approximately 7,500 gpm is needed to pass through the RHR heat exchanger

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To remove the design heat load, assuming the design maximum value for the heat exchanger fouling factors, a nominal number of plugged tubes, and the maximum RHRSW inlet temperature. The most recent heat transfer test of the Unit 2 'B' RHR heat exchanger was performed on October 2, 1992, and showed that the actual fouling factors were significantly less than the design maximum values. Also, no Unit 2 RHR heat exchanger tubes are plugged. Furthermore, with the onset of Fall, the RHRSW temperature is and will continue to be less than the maximum value used in this heat transfer calculation.

If you have any questions or require additional information, please contact us.

Very truly yours,



G. J. Beck, Manager  
Licensing Section

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