ENCLOSURE

The Light company
Houston Lighting & Power South Texas Project Electric Generating Station P. O. Box 289 Wadsworth, Texas 77483

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

South Texas Project
Unit 1
Docket Nos. STN 50-498
Request for a Temporary Waiver of Compliance
from the Provisions of Technical Specification 3.7.4

Houston Lighting & Power Company (HL&P) requests a one-time Temporary Waiver of Compliance to Technical Specification 3.7.4 for the South Texas Project (STP) Unit 1 Essential Cooling Water (ECW) System to allow Train B of ECW to remain out-of-service for up to 240 hours for repair of a crack in a 30-inch line. The crack is in a weld between the ECW outlet nozzle on Component Cooling Water Heat Exchanger 1B and the first elbow on the ECW return line. HL&P has evaluated the effect of ECW Train B being out-of-service for more than 72 hours and determined that continuing plant operation for the necessary time is consistent with protecting the public health and safety. Otherwise, per Technical Specification 3.7.4, with only two essential cooling water loops operable, three loops are to be restored to operable status within 72 hours or the unit is to be in at least Hot Standby within the next six hours and in Cold Shutdown within the following 30 hours. Approval of this Temporary Waiver of Compliance will preclude an unnecessary transient and associated stresses on Unit 1 components and systems during shutdown and restart evolutions.

In addition, HL&P intends to perform repairs on Essential Chiller Train B when it is removed from service due to the ECW Train B outage. Per Technical Specification 3.7.14, with only two of the three essential chiller trains operable, three loops are to be in operable status within 72 hours or the affected unit should be in at least hot standby within the next 6 hours and in cold shutdown within the following 30 hours.

Expeditious review and approval of this temporary waiver of compliance is requested to enable the repairs to proceed without adversely impacting the continued operation of Unit 1.

The ECW system consists of three 50-percent capacity trains and provides cooling required for safety-related components during and after any design-basis accident such as a loss of coolant accident, loss of offsite power, or a safe shutdown earthquake. Additionally, the ECW system functions during normal operation and other non-emergency operating modes to transfer heat loads from service equipment to the essential cooling pond. The ECW system provides cooling water to the following components during all emergency and non-emergency modes of operation:

- Standby Diesel Generator Inter-cooler
- Standby Diesel Generator Auxiliary Equipment Skid Coolers
- Essential HVAC Chillers
- Component Cooling Water Heat Exchanger
- Component Cooling Water Pump Supplementary Cooler

A task force has been assembled to address the concern of cracks in ECW piping. In addition to researching the root cause of the cracks, the team has also investigated the various options for repair to determine the best approach to ensure an expeditious return to service. Because of the amount of repair work to be done, HL&P requests extension of the allowed outage time to 240 hours to allow adequate time for performing necessary repairs without requiring the unit to be shut down.

There is no significant safety impact relative to extending the outage time for ECW train B. The other two trains of ECW will be operable and can mitigate the design basis accident (DBA). Since only one train of ECW is necessary for safe shutdown of the plant and mitigation of all accidents except the very unlikely DBA, there is adequate redundancy with availability of the other ECW trains.

There is no significant safety impact relative to extending the outage time of one Essential Chilled Water train. The Essential Chilled Water System provides chilled water for air-handling units to provide a suitable environment for personnel and equipment located in the Mechanical Auxiliary Building, Electrical Auxiliary Building, and the Fuel Handling Building. The key function for accident mitigation is to provide chilled water for the EAB HVAC air-handling units for heat removal from electrical switchgear and distribution rooms. The system consists of three identical and separate trains, each including a 150-ton chiller and a 300-ton chiller. Chilled water cooling capacity of 450 tons is sufficient for mitigating accident scenarios except for the large loss of coolant accident which is an extremely low probability event; therefore, only one train is needed for accident mitigation. Thus, there is adequate redundancy with availability of the remaining two Essential Chiller trains.

Review of the STP Probabilistic Safety Assessment (PSA) shows that a one-time increase in the allowed outage time for the indicated ECW and Essential Chiller trains from 72 hours to 240 hours will not significantly affect the calculated core damage frequency (CDF) at STP. The increase in CDF has been estimated to be approximately 0.2%.

HL&P's review of the requested extension shows that there are no significant hazards considerations because:

1) It does not involve a significant increase in the probability or consequences of an accident previously evaluated. Availability of two trains is adequate for accident mitigation, since unavailability of one train is already considered in STP accident analyses.

2) It does not create the possibility of a new or different kind of accident from any accident previously evaluated. No changes in mode of operation of ECW or Essential Chiller System are proposed, or in the configuration of the system. No change to the system as evaluated in the STPEGS safety analysis is proposed.

3) It does not involve a significant reduction in the margin of safety. As discussed above, review of the STP PSA shows the increased outage time for this waiver of compliance is an insignificant contributio.. to risk at STPEGS.

There is no potential for significant environmental consequences from extending the train outage time. There is no accident analysis impact, and the nature of the work does not involve release of radiological or non-radiological effluents or adversely affect systems associated with control of effluents.

HL&P's Plant Operations Review Committee has reviewed the proposed extension and found it to be acceptable.

If you have any questions, please contact P. L. Walker at (512) 972-8397, or me at (512) 972-7921.

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