The Light company Houston Lighting & Power P.O. Box 1700 Houston, Texas 77001 (713) 228-9211

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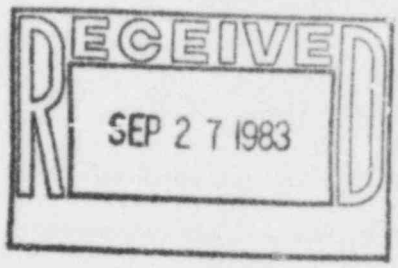

Mr. John T. Collins
Regional Administrator, Region IV
Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76012

Dear Mr. Collins:

South Texas Project
Units 1 & 2
Docket Nos. STN 50-498, STN 50-499
First Interim Report Concerning the
Reactor Containment Building Post-Tensioning System Tendons

On August 26, 1983, pursuant to 10CFR50.55(e), Houston Lighting & Power Company (HL&P) notified your office of an item concerning the Reactor Containment Building (RCB) post-tensioning system tendons. Attached is the first interim report concerning this item. The next report will be submitted to your office by February 29, 1984.

If you should have any questions concerning this item, please contact Mr. Michael E. Powell at (713)877-3281.

Very truly yours,

D. N. Baker for

G. W. Oprea, Jr.
Executive Vice President

MEP/mg
Attachment

IE-27
1/1

cc: G. W. Oprea, Jr.
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First Interim Report Concerning the Reactor Containment Building Post-Tensioning System Tendons

I. SUMMARY

Post-tensioning system tendons in long term storage at the vendors warehouse have been identified as exhibiting corrosion (e.g., rust and pitting). Evaluations are underway to determine if the condition impairs the strength of the tendons such that the required tensile strength cannot be met.

II. DESCRIPTION OF DEFICIENCY

On August 26, 1983, pursuant to 10CFR50.55(e), Houston Lighting & Power Company (HL&P) notified the NRC Region IV of an item concerning the Reactor Containment Building (RCB) post-tensioning system tendons.

The tendons for the post-tensioning system of the RCB (Units 1 & 2) have been fabricated and held in storage at the fabricator's (Prescon Corporation) warehouse in San Antonio, Texas. The project specification requires that the fabricated tendons be periodically dipped in a corrosion inhibiting compound and visually inspected to ensure that no corrosion has developed. The specified care of the tendons is periodically surveyed in accordance with project procedures.

Visual inspection of some tendons has revealed rust and pitting of tendon wires. This was further investigated by a team of engineers through a visit to the storage facility. A program was implemented to assess the extent and nature of corrosion with the ultimate objective of determining the suitability of the tendons to perform their intended function for the lifetime of the plant. The basic approach for the evaluation of the tendon corrosion was to investigate a representative sample of the tendons for suitability and then extend the findings by statistical projections to the entire tendon population.

Currently, two randomly selected tendons have been completely examined by Pittsburgh Testing Laboratory. Results indicate that the corrosion pitting condition prevails in most of the wires, and it is not restricted to certain locations within the tendons. In some cases, pit depths exceeding 15 mils have been measured. Tensile test results indicate that the pitted wire material strength and ductility exceed the minimum specified limits. Further evaluation of the test results is presently under way to establish homogeneity of the tendon population, to determine the final sample size, and to validate a statistical approach.

III. CORRECTIVE ACTION

It is anticipated that the investigation of the corrosion of tendons will be complete enough by the end of January 1984 to reach a final decision to either use the existing fabricated tendons or procure replacement tendons.