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

April 15, 1985
ST-HL-AE-1226
File No.: G12.223

Mr. Robert D. Martin
Regional Administrator, Region IV
Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

South Texas Project
Units 1 & 2
Docket Nos. STN 50-498, STN 50-499
Second Interim Report Concerning
Flood Protection

Dear Mr. Martin:

On December 20, 1984, Houston Lighting & Power Company (HL&P) notified the Nuclear Regulatory Commission concerning a reportable deficiency related to inadequate flood protection of Category I structures. Attached is the second interim report concerning this item. The next report will be submitted to your office by July 31, 1985.

If you should have any questions on this matter, please contact Mr. Michael E. Powell at (713) 993-1328.

Very truly yours,

J. T. Westermeier for
J. H. Goldberg
Group Vice President, Nuclear

MEP:yd

Attachment: Second Interim Report Concerning the
Flood Protection Deficiency

C5-199

W2/NRC1/o

IE-27
1/1

cc:

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South Texas Project
Units 1 & 2
Docket Nos. STN 50-498, STN 50-499
Second Interim Report
Concerning Flood Protection Deficiency

I. Summary

A review of flood protection measures for Category I structures resulted in the determination that certain exterior openings are not adequately protected against external floods. This violates the requirements of 10CFR50 Appendix A General Design Criteria 2 and if left uncorrected could have adversely affected the safety of the plant.

Design changes are being implemented to correct the identified deficiencies. In addition, a comprehensive review has been completed to identify any other flood protection related problems. Corrective actions will be implemented as required.

II. Description of the Deficiency

On December 20, 1984 HL&P notified the Nuclear Regulatory Commission of a reportable deficiency concerning inadequate flood protection of Category I structures. The specific deficiencies identified were discovered during a survey in preparation of responses to NRC questions on flood protection. The specific deficiencies are as follows:

A. The cover for the top of the Tendon Gallery (TG) shaft is not watertight. Although flooding of the TG is not a concern, a non-watertight access door exists between the TG and the Mechanical Electrical Auxiliary (MEAB). Flooding of the TG could, therefore, ultimately result in the flooding of the MEAB.

B. Two drain systems exiting Seismic Category I buildings do not have check valves in their discharge lines; specifically, one 4" sanitary sewer line out of the MEAB (see Drawing 9-B-0154) and three 8" oily waste/fire drain system lines out of the diesel generator building (see Drawing 9-B-0171).

C. Ductbanks leaving the MEAB at various elevations below grade terminate at manholes which are not provided with watertight covers. The ducts provide a path for flood waters as the space around the cables is not plugged by watertight seals (see Drawings 0-C-5041, 9-C-4063, and 0-C-5033).

During the comprehensive review, the following additional deficient conditions were discovered:

D. A 6" sanitary sewer external discharge line out of the MEAB does not have a check valve.

E. During the review it was determined that if the trash pit for the ECW traveling screen were to become clogged, a backup of water into the Essential Cooling Water Intake Structure (ECWIS) could occur. The pit could backup if the two 6" drains under the trash pit were to become clogged.

F. A leak was detected at the seismic joint between Unit 2 Reactor Containment Building and the Fuel Handling Building.

III. Corrective Action

Corrective actions to correct the above deficiencies are as follows:

A. Flooding of the MEAB will be prevented by installation of a watertight door at the bottom of the tendon gallery access shaft. The design drawings will be revised by July 15, 1985.

B. Check valves will be provided on the four lines found not to have backflow prevention devices. Changes to the design drawings will be completed by July 15, 1985.

C. All ductbanks leading into safety-related areas will be sealed. Revisions to required design drawings will be completed by July 15, 1985.

D. The corrective action for this discharge line will be the same as B above. Changes to the drawings will be completed by July 15, 1985.

E. Corrective action for flooding via the trash pit and trough is being evaluated at this time.

F. The cause of the leak is being investigated. Appropriate corrective action will be implemented once the cause is determined.

IV. Recurrence Control

A review of the Seismic Category I buildings was performed to verify that all external openings below design basis flood water levels are designed to prevent migration of water into safety-related areas. Included in this review was a review of the adequacy of the waterstops between adjacent Seismic Category I buildings.

V. Safety Analysis

Extensive modeling and analysis of the deficiencies noted is necessary to assess potential impact on safety-related areas. This modeling was deemed not to be cost effective and the design modifications identified in III above will be implemented to preclude any adverse impact. Therefore, it is assumed that, if left uncorrected, the identified deficiencies could impact safety related areas.