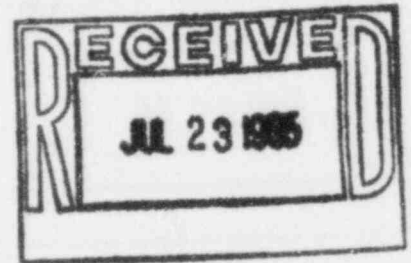


The Light company

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

July 19, 1985
ST-HL-AE-1289
File No.: G12.231

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
Final Report Concerning the
Fuel Handling Building Minimum Temperature
During a Loss of Offsite Power

Dear Mr. Martin:

On March 12, 1985 Houston Lighting & Power Company (HL&P) notified your office, pursuant to 10CFR50.55(e), of an item regarding the Fuel Handling Building minimum temperature during a loss of offsite power. Enclosed please find our Final Report on this item.

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

Very truly yours,

A handwritten signature in cursive script, appearing to read "J. H. Goldberg".

J. H. Goldberg
Group Vice President, Nuclear

JSP/as

Attachment: Final Report Concerning The
Fuel Handling Building Minimum
Temperature During A Loss of Offsite Power

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Washington, DC 20555

South Texas Project
Units 1 & 2
Final Report Concerning The
Fuel Handling Building Minimum Temperature
During A Loss of Offsite Power

I. Summary

On March 12, 1985, Houston Lighting & Power Company (HL&P) notified the NRC Region IV of an item concerning the minimum temperature in the Fuel Handling Building (FHB) during a loss of offsite power. A loss of offsite power (LOOP) would deenergize heaters in the HVAC intake system, but the Class 1E HVAC exhaust system would continue to draw outside air into the FHB. In the winter, with a minimum outside temperature of 29°F, the FHB temperature could drop below the 65°F minimum specified for equipment qualification purposes. This sequence of events has been reviewed and determined not to be a credible design basis event. Therefore no deficiency or safety hazard exists.

II. Description of Deficiency

On March 12, 1985 HL&P notified Region IV of the NRC that an item concerning the minimum temperature in the FHB during a LOOP had been determined to be potentially reportable. This item was discovered during a verification of the FHB environment during abnormal conditions.

The FHB HVAC system includes the Supply Air Subsystem and Exhaust Air Subsystem. The supply air subsystem provides a filtered source of outside air at a controlled temperature. Electric heating coils are provided downstream of the prefilters. In case of a LOOP, the supply air subsystem fans and heaters would be deenergized. Emergency make-up dampers automatically open to permit outside air to be drawn into the FHB. The exhaust air system fans are sequenced on the standby diesel generators and re-energized. This results in outside air being drawn into the FHB and discharged from the building by the Class 1E Exhaust Air Subsystem.

In the evaluation of this item, two major scenarios were considered. The first requires a day with a minimum design temperature (29°F) coincident with a sustained LOOP. The plant, due to LOOP, is in a hot standby condition and will not be restarted during LOOP. In the second case, a sustained LOOP coincident with low outside temperature followed by a LOCA is an even more unlikely scenario. Adding to the incredibility of the event, the LOCA would have to occur many hours after initiation of the LOOP for there to be any effect due to low temperature in the FHB.

Based on the highly unlikely nature of these events this item is not considered to be reportable pursuant to 10CFR50.55(e).

III. Corrective Action

The unlikely event of a sustained LOOP during unusually cold weather and the more unlikely event of a LOCA coupled with a LOOP during cold weather are not considered to be credible. Therefore no deficiency exists and no corrective action is required.

IV. Recurrence Control

No recurrence control is necessary since no deficiency exists.

V. Safety Analysis

The unlikely event of a LOOP during unusually cold weather and the more unlikely event of a LOCA coupled with a LOOP during cold weather are considered incredible. Therefore, no deficiency or safety hazard exists and this item is considered not reportable pursuant to 10CFR50.55(e).