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July 9, 1985 ST-HL-AE-1299 File No.: G12.257

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 Potential for Depressurization of the EAB, Control Room and TSC HVAC System

Dear Mr. Martin:

The Light

On June 12, 1985, pursuant to 10CFR50.55(e), Houston Lighting & Power Company (HL&P) notified your office of an item concerning a potential for depressurization of the Electrical Auxiliary Building (EAB), Control Room (CR) and Technical Support Center (TSC) common air intake plenum. Attached is the final report concerning this item.

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

Very truly yours.

J. H. Goldberg Group Vice President, Nuclear

MEP/as

Attachment: Final Report Concerning the Potential for Depressurization of the EAB, Control Room and TSC HVAC System

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Houston Lighting & Power Company

cc:

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South Texas Project Units 1 & 2 Final Report Concerning the Potential for Depressurization of the EAB, Control Room and TSC HVAC System

I. Summary:

A deficiency was identified regarding the potential for depressurization of the Electrical Auxiliary Building (EAB), Control Room (CR) and Technical Support Center (TSC) common intake plenum because of the TSC outside air duct, which is connected to the plenum, is not designed for tornado conditions. The deficiency will be corrected by adding a tornado damper and missile protection where the TSC outside air duct penetrates the plenum wall.

II. Description of the Deficiency:

On June 12, 1985, pursuant to 10CFR56.55(e), Houston Lighting & Power Company (HL&P) notified the NRC Region IV of an item concerning a potential for tornado depressurization of the EAB, CR and TSC HVAC systems. A common outside air intake plenum serves the EAB, CR and TSC HVAC Systems. Tornado dampers are provided at the two louver intakes for the plenum to protect it and the downstream safety-related HVAC systems from tornado depressurization. The TSC system outside air intake which connects to the above plenum is routed outside the category I structures and it is not designed for maximum tornado pressure conditions. In the event of a tornado, this duct could fail, resulting in the depressurization of the common air intake plenum. This could in turn cause depressurization of the safety-related EAB and CR HVAC system ductwork and components. Since they are not designed for tornado pressure conditions, this could render the system inoperable.

III. Corrective Action:

This item will be resolved by adding a tornado damper and providing missile protection where the TSC outside air duct penetrates the plenum wall.

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IV. Recurrence Control:

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An investigation into the HVAC systems for safety-related buildings concluded that the deficiency described above in the TSC/EAB duct is an isolated case. Normal design control procedures will ensure that HVAC systems design will not be altered without thorough review by the project. No other recurrence control measures are necessary.

V. Safety Analysis:

Had this deficiency remained uncorrected and the Control Room and EAB HVAC Systems were rendered inoperable by tornado depressurization, the habitability of Control Room Envelope and operation of Class IE electrical equipment could be affected. This could jeopardize safe plant shutdown. Rather than performing extensive depressurization calculations, a safety hazard was assumed to exist.