



UNITED STATES  
 NUCLEAR REGULATORY COMMISSION  
 REGION IV  
 611 RYAN PLAZA DRIVE, SUITE 1000  
 ARLINGTON, TEXAS 76012

41 *File B*

July 26, 1979

*1002/HLPC*

The Honorable J. J. Pickle  
 Representative, Tenth District, Texas  
 House of Representatives  
 Congress of the United States  
 242 Cannon House Office Building  
 Washington, D. C. 20515

**DEPOSITION  
 EXHIBIT**

*Seaford  
 No. 6*

Dear Congressman Pickle:

We are in receipt of your inquiry of July 9, 1979, regarding the discovery of new voids in the concrete containment building at the South Texas Nuclear Project.

On October 20, 1978, Houston Lighting and Power Company (HL&P), in accordance with Federal Regulations, notified the Region IV Office of voids that had been identified in the shell wall of the Unit No. 1 containment building following placement of the 15th lift. The voids were located in the area where the polar crane brackets are embedded in the concrete. Subsequent to the notification and as a part of corrective action, HL&P initiated a program to determine if other voids existed in the containment building shell wall. Additional voids were identified in the 8th lift and the Region IV Office was notified on June 18, 1979.

As a result of the identification of additional voids, HL&P issued an Order to their constructor, effective June 22, 1979, to stop placement of safety-related concrete. Simultaneously, they initiated a program to determine if any additional voids existed and to identify factors that had contributed to void formation. The Region IV Office acknowledged by letter to HL&P on June 22, 1979, an understanding of actions that HL&P committed to take prior to resuming placement of safety related concrete. HL&P is committed to evaluate the causes and extent of the void formation problem and completion of specific corrective actions which include reviews of placement procedures; adequacy of concrete design mix; optimum ratios of quality control personnel to placement personnel and supervisory personnel; preplacement planning; and design of reinforcing steel and embedded structures. As a result of an extensive review of the items identified in the letter of June 22, 1979, and because of confidence developed on past placements in safety related structures other than containment, resumption of concrete placement in other safety-related structures was authorized effective on June 29, 1979. The licensee's order to stop placement of concrete in the shell wall of the containment building remains in effect pending completion of corrective action and establishment of measures to preclude recurrence.

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The Honorable J. J. Pickle

7/24/79

Region IV is closely monitoring HL&P's ongoing investigative efforts to determine if any additional voids exist under the liner of the containment building and will review and evaluate HL&P's corrective actions prior to resumption of concrete placement in the containment building shell wall.

Regarding the specific questions you have raised, the voids resulted from a combination of placement of concrete beneath horizontal channel plate stiffeners in areas of extreme congestion of reinforcing steel and insufficient consolidation of the concrete. This lack of consolidation of the concrete by the work forces, and failure of Quality Control personnel to identify the problem allowed formation of voids to occur under the horizontal channel plate stiffeners. No design deficiencies have been identified. Repair of the voids is by means of a pressure grout method which has been reviewed by the licensee and by the NRC. No difficulties are envisioned in repairing the voids. To preclude recurrence, the licensee is committed to corrective actions in the areas of better pre-planning, increased surveillance during concrete placement, and changes in work practice and placement techniques in areas of reinforcing steel congestion.

The repair of the voids in the area of the polar crane brackets has been completed and each bracket load tested. The polar crane has since been utilized to set the reactor vessel in place.

We trust that this information is fully responsive to your concerns; however, should you have further questions, please feel free to contact us.

Sincerely,

Karl V. Seyfrit  
Director

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- (H11-1978-H06)
- G. Ertter (EDO-6889)
- IE Files
- Central Files
- IE Reading Files
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