

# The Light company

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

June 22, 1981  
ST-HL-AE-684  
SFN: V-0530

Mr. Karl Seyfrit  
Director, Region IV  
Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 1000  
Arlington, Texas 76012

Dear Mr. Seyfrit:

South Texas Project  
Units 1 & 2  
Docket Nos. STN 50-498, 50-499  
Supplemental Information Regarding the  
Concrete Repair Program of the Reactor  
Containment Buildings

On May 20, 1981, during an inspection of Houston Lighting & Power's documentation for 10CFR50.55(e) items, Mr. J. Tapia of your office requested supplemental information concerning the concrete repair program utilized in the repair of the Reactor Containment Building (RCB) shell walls. The request for additional information was limited to those concrete repairs required as a result of the Lift No. 8 Concrete Void Investigation. Therefore the following information is provided in response to Mr. Tapia's request.

The method for repair of the concrete voids in the Reactor Containment Building shell walls basically comprised the following steps:

- (1) The containment liner was "sounded" in order to map potential void areas.
- (2) Exploratory holes were drilled to determine the actual void area.
- (3) All voids were hydrostatically pressure tested using the holes to determine which voids were interconnected behind the liner plate.
- (4) Pumping of the grout was then initiated. Grout injection was made at the lowest open insert for an individual repair area as determined by the hydrostatic pressure test. As the grout filled the void successively higher insert holes were shut off (closed) as full consistency grout flowed through the hole (i.e. water-dilluted grout and/or air bubbles were allowed to escape).



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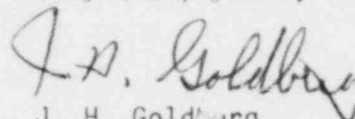
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- (5) The holes drilled into the liner plate were repaired using couplings and plugs. These couplings were machined to fit the holes and welded to the liner to meet ASME requirements. Plugs were inserted into the couplings and seal welded.
- (6) Training was required of all personnel involved in the repair program.
- (7) Repairs were witnessed by a Brown & Root QA/QC Inspector and performed under the direction of, and evaluated by, Design Engineering or a professional consultant.

The adequacy of this repair method was verified following the repair of Lift 15 in RCB 1. Holes were drilled through the liner into the grouted area to determine whether there were any ungrouted voids, and to inspect the quality of the grout in place and the grout-concrete interface. Examination of each of these holes revealed solid grout, concrete, or both. No voids were found, and the interfaces between the grout and concrete were tight. Additionally, a polar crane girder bracket was successfully load tested, also demonstrating that this repair method was adequate.

If there are any questions regarding this item, please contact Mr. R. R. Hernandez at (713) 676-8211.

Very truly yours,



J. H. Goldberg

Vice President

Nuclear Engineering and Construction

RRH/SSR/amj

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