

OCT 17 1984

Mr. William J. Cahill, Jr.  
Senior Vice President  
River Bend Nuclear Group  
Gulf States Utilities Company  
Post Office Box 2951  
Beaumont, Texas 77704  
ATTN: Mr. J. E. Booker

Dear Mr. Cahill:

SUBJECT: RIVER BEND STATION SHEAR REINFORCEMENT DESIGN

As a result of the Integrated Design Inspection (IDI) recently completed at River Bend Station, several questions were raised regarding the shear reinforcement design of certain structures. Following a September 13, 1984 meeting in which the River Bend Station architect-engineer, Stone & Webster Engineering Corporation, satisfactorily addressed generic concerns pertaining to shear reinforcement design, the staff has determined the need for additional information to ensure the adequacy of the design approach as applied to River Bend Station.

To permit final resolution of this issue, you are requested to provide:

- 1) A summary of the calculations pertaining to the redefinition of the temperature gradient and resulting thermal loads. It was stated during an earlier meeting that the demand for shear reinforcing was reduced when the concrete fill between the Shield Building and the containment steel shell was provided which resulted in a reduction in the design temperature from 195 degrees F. to 150 degrees F.
- 2) Calculations pertaining to the determination of the required reinforcing bar area before and after the concrete fill was added. The required reinforcing bar area prior to the addition of the concrete fill was shown to be equal to 0.569 square inches.
- 3) An explanation of how the critical section or sections were determined including the rationale for assuring the most critical sections were evaluated.
- 4) The results of the evaluation for loads on Shield Building wall at the top

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of the annulus fill concrete at elevation 95'0".

Please inform NRC Project Manager Edward Weinkam of your schedule for response and for clarification or future discussion on this topic.

Sincerely,

Original signed by

A. Schwencer, Chief  
Licensing Branch No. 2  
Division of Licensing


cc: See next page

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River Bend Station

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