

GULF STATES UTILITIES COMPANY

POST OFFICE BOX 2951 • BEAUMONT, TEXAS 77704

AREA CODE 713 838-3843

March 1, 1982

RBG-12,214
File No. G9.5

Mr. Robert L. Tedesco
Assistant Director for Licensing
U. S. Nuclear Regulatory Commission
Division of Licensing
Washington, D.C. 20555



Dear Mr. Tedesco:

River Bend Station Units 1 and 2
Docket Nos. 50-458 and 50-459

This letter is in response to your March 30, 1981 letter concerning, "Ultimate Capacity Analysis of Mark III Containments." GSU's interim responses dated May 18 and June 22, 1981 provided information regarding our participation in industry organizations, an explanation of the current River Bend Station (RBS) combustible gas control system design, and the RBS containment design pressure of 15 psig.

In GSU's May 18 letter we committed to initiate a program to determine the static pressure retaining capacity of the RBS containment and to provide you with results of our static determination along with the status of our dynamic program.

The static analysis of the RBS containment and drywell is in progress and the first part of the analysis is anticipated to be complete by May 3, 1982. The analysis is divided into two parts: 1) overall structural capability (complete May 3) and 2) capability of locks, hatches, and the drywell head. The second part of the analysis will not begin until June when the vendors' final stress reports are expected to be available. This analysis should be complete by October 1, 1982.

The first part of the analysis, the overall structural capability of the drywell and containment, is partially complete. Preliminary results are available for the drywell and are indicated below. The containment analysis results are not available at this time. The final results of the overall structural capability is estimated to be complete by May 3, 1982.

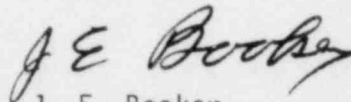
*Boo
Silo*

Preliminary results for the drywell structure indicate a capacity of 80psi. The failure occurs at the junction of the top slab and cylinder. The analysis has ignored the strengthening effects of the fuel pool walls. The actual capacity may be closer to 115psi, which is the capacity of the structure to resist lateral bursting.

GSU does not plan on performing any dynamic analysis since the hydrogen burn analysis is expected to show that no significant dynamic condition exists inside containment. This is further substantiated by the discussion in Appendix C to NUREG/CR-1561, "The Behavior of Hydrogen During Accidents in Light Water Reactors," and by the June 19, 1981, transmittal from Mississippi Power & Light to the NRC which enclosed the "Final Report on Grand Gulf Nuclear Station Hydrogen Ignition System."

A status report of the static analysis will be provided by the end of May, 1982.

Sincerely,



J. E. Booker
Manager - Engineering & Licensing

Copy for
JEB/RJK/kt