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Docket No. 50-410

JUL 9 1985

Mr. William J. Cahill, Jr.  
Senior Vice President  
River Bend Nuclear Group  
Gulf States Utilities Company  
P.O. Box 2951  
Beaumont, Texas 77704  
Attention Mr. J. E. Booker

Dear Mr. Cahill:

SUBJECT: SEISMIC EQUIPMENT QUALIFICATION FOR RIVER BEND

On June 14, 1985, you submitted responses to concerns in the area of seismic equipment qualification for River Bend. Enclosure 1 contains our comments and additional information needed to complete our review.

Enclosure 2 contains comments to FSAR Amendment 20 in the area of seismic and dynamic equipment qualification which need to be addressed.

Enclosure 3 identified items in the area of seismic and dynamic equipment qualification for which confirmation needs to be provided. Confirmation should be provided for items 1, 2 and 3 prior to fuel load.

If you have any questions concerning the enclosure, please contact the Licensing Project Manager, Stephen Stern (301)-492-8349 or Mary F. Haughey (301)-492-7897.

Sincerely,

Walter R. Butler, Chief  
Licensing Branch No. 2  
Division of Licensing

Enclosure: As stated

cc: Stephen Stern

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

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Division of Licensing

Enclosure: As stated

cc: Stephen Stern

Mr. William J. Cahill, Jr.  
Gulf States Utilities Company

River Bend Nuclear Plant

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COMMENTS AND ADDITIONAL INFORMATION REQUIRED CONCERNING THE JUNE 14, 1985  
SUBMITTAL ON SEISMIC EQUIPMENT QUALIFICATION FOR RIVER BEND.

1. For components which are to be qualified prior to fuel load for which a JIO has been provided, the following information is needed:
  - a. Statement that testing and/or analysis is complete.
  - b. Statement that the qualification reports have been reviewed for the RBS specific application and were found acceptable.
  - c. Statement that the qualification documentation is available for review.
  - d. Brief description of the basis for seismic qualification (i.e. test, analysis).
2. Provide confirmation that the in-vessel rack will not be used until the first refueling outage and that it will be qualified prior to its use. Also provide location of in-vessel rack.
3. 125 Standby DC Control Supply Panel Board Failure modes:
  - a. Knife type - need clarification/detail on why this is not a credible failure.
  - b. Switch loose mounting support - need relative "g" values.
4. 150 lb., 1 inch valves, containment penetration process line seal air pressure valve actuators; similarity to other valves stated but not described. Need detailed comparison.

Comments to FSAR Amendment 20 in the area of seismic and dynamic qualification of equipment.

1. On Page 3.9B-34 under section 3.9.2.2.1.B it is stated that for equipment subjected to hydrodynamic loads a cut off frequency of 60 Hz is used. For hydrodynamic loads the cut off frequency is generally considered to be 100 Hz, and this seems to be recognized as indicated on page 3.9B-36a under sections 3.9.2.2.2.2.B. GSU should confirm that equipment with natural frequencies between 60 Hz to 100 Hz that needs to be qualified for hydrodynamic loads is qualified and acceptable.
2. On Page 3.9B-36 under section 3.9.2.2.1.3B it is simply stated that sufficient magnitude and number of SRV actuations expected during 40 years of plant operation was considered for fatigue evaluation. Basic assumptions regarding the numbers of actuations and the total number of cycles of stress used in the calculation of predicted usage factors should be clearly stated in the FSAR.
3. On Page 3.9B-63 under section 3.9.3.2.1B it is stated that particulates that might pass through the suction side strainers will not affect the pump operability. However, no basis for this statement has been given. GSU should provide in the FSAR the basis for this statement (i.e., operability of a similar pump has been demonstrated under similar conditions for the ECCS pumps).
4. On Page 3.9B-65 under section 3.9.3.2.2B it is stated that the RCIC pump/turbine is rigid and is seismically qualified by analysis. The turbine governor that controls the speed may be susceptible to earthquake related vibration, and under the earthquake related vibratory motion it could shut off the steam inlet, and thereby the ECCS pump itself. GSU should provide an explanation of how the seismic effect on pump operability through the turbine governor has been properly accounted for.

1. Upon completion of as-built piping analysis for all pipe-mounted safety-related equipment, confirmation should be provided that the g-values used for qualification of these equipment were not lower than the g-values obtained from the as-built piping analysis.
2. The qualification of those pieces of equipment which were originally qualified to meet IEEE Std 344-1971, should be identified and upgraded to meet the requirements of IEEE Std 344-1975 as applicable. Confirmation should be provided.
3. Upon completion of the on-going qualification process, the applicant must confirm that all safety-related equipment have been qualified. If all safety-related equipment is not qualified prior to fuel load, GSU should provide the following,
  - a) GSU must identify those items of equipment necessary for low power operation ( $\leq 5\%$ ) which will not be qualified during low power operation and provide justification for interim operation.
  - b) GSU must identify those items of equipment necessary for exceeding low power operation ( $> 5\%$ ) which will not be qualified before exceeding low power operation and provide justification for interim operation.
  - c) GSU must identify those items of equipment necessary for 1st Refueling Outage but which will not be qualified and provide justification for interim operation.
4. Prior to exceeding low power operation ( $> 5\%$ ) GSU must present results of mini-audit conducted per May 17, 1985 NRC letter to GSU, and RGB letters 21093, 21337.