GULF STATES UTILITIES COMPANY

RIVER BEND STATION POST OFFICE BOX 220 ST. FRANCISVILLE, LOUISIANA 70775

AREA CODE 504 635-6094 346-8651

July 19, 1985
RBG- 21,575
File No. G9.5, G9.20.8

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Denton:

River Bend Station - Unit 1
Docket No. 50-458

In response to a request for additional information dated July 9, 1985 from Walter R. Butler to William J. Cahill, Jr., Gulf States Utilities Company (GSU) provides the enclosed seismic qualification supplement. Enclosure 1 to the July 9, 1985 Nuclear Regulatory Commission (NRC) letter was addressed in GSU's July 8, 1985 (RBG-21,511) letter to your office. Attachments 1 and 2 address Enclosure 2 and 3 to the July 9, 1985 NRC letter, respectively.

Sincerely,

J. E. Booker

J. E. Booker
Manager-Engineering,
Nuclear Fuels & Licensing
River Bend Nuclear Group

JEB/JGP/LS/RWK/je

Attachments

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ATTACHMENT 1

1. Page 3.9B-34 Paragraph 3.9.2.1.B, Amendment 20, (Generally 1 to 33Hz...1 to 50Hz...) will be changed to read (Generally 1 to 33 Hz... and 1 to 100 Hz for equipment...).

2. The basic assumptions regarding the numbers of actuations and the total number of cycles of stress are addressed in FSAR Section 6A.17.2.4.

3. Pump operability is assured by (a) minimizing the amount of material that may enter the pump through the suction strainers and (b) by specific pump design features as discussed below:

   Insulation debris that could enter the RHR and low pressure and high pressure core spray (CS) pumps following an accident would be in the form of small clumps and individual strands of fiberglass insulation and very fine particulate matter. The quantity entering the pumps would be very small because only a small quantity of insulation would be discharged to the suppression pool and an even smaller amount , if any, would be transported to the outside perimeter of the suppression pool where the suction strainers are located. This issue is discussed in detail in FSAR subsection 6.2.2.2.

   Fiberglass clumps and strands capable of passing through the suction strainers that operate with a low differential pressure would easily be forced through the mechanical seal orifices that operate at differential pressures on the order of 25 psi to 100 psi. The debris would be prevented from entering the mechanical seal cavity by the cyclone separators that filter water prior to its discharge into the seal cavity. The cyclone separators can remove 96% to 99% of particles as small as 10 microns. If insulation is discharged into the seal cavity, centrifugal hydraulic forces close to the rotating seal would tend to keep the insulation radially removed from the seal mating faces. Incoming seal cooling water would tend to flush the insulation out of the seal cavity. Additionally, the seal mating faces are held together by a spring load and have virtually zero clearance between the faces with the result that it would be difficult for insulation to come between these sealing faces and cause accelerated wear.

   The RHR and CS pumps utilize hydraulic journal bearings. While these bearings are not highly susceptible to entry of insulation contained in the pumped fluid, insulation could possibly be drawn into the space between the journal bearing and shaft and result in some increase in bearing wear rate. The increased wear rate is not expected to be large because the quantity of insulation in the fluid is expected to be low and close clearances within the pump should further reduce the quantity of insulation that enters the journal bearing. The pumps are of rugged construction and can tolerate considerable bearing wear without pump failure. Therefore, it is judged that the increase in bearing wear due to loose insulation debris is acceptable.

4. The RCIC turbine assembly, including the governor, has been seismically qualified by dynamic testing as discussed in FSAR Section 3.9.2.2.2.6B.

ATTACHMENT 2

1. GSU has confirmed that the g-values resulting from the as-built piping analysis for pipe-mounted, safety-related equipment are not higher than the g-values used for qualification of this equipment.

2. GSU's letter dated March 29, 1985 (RBG-20594) Attachment 2 Item A.7 addressed this specific question.

3. In GSU's letter dated May 15, 1985 an updated Seismic and Pump and Valve Qualification Program Master List was provided with justification's for interim operation (JIO) provided for those items required by fuel load. Supplemental information and seismic JIO's have been provided in GSU's June 14, 1985 (RBG-21,300), June 20, 1985 (RBG-21,346) and July 8, 1985 (RBG-21,511) letters. The current JIO schedules are provided below:

Spec. No./MPL No.	Description	Schedule Completion
1. 242.421	125 dc Panelboard	September 16, 1985
2. 247.433	Level Element & Switches	July 30, 1985
3. 247.497	Borg Warner Globe Valves	September 30, 1985
4. E22-S001	HPCS Diesel Generator	October 30, 1985
5. F16-E006	In-Vessel Rack	1st Refueling
6. F16-E011	Equipment Storage Rack	July 22, 1985

4. GSU's June 25, 1985 (RBG-21,377) letter provided the River Bend Station (RBS) seismic qualification mini-audit checklist. A report will be submitted prior to exceeding 5% of rated power.