

GULF STATES UTILITIES COMPA

RIVER BEND STATION

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> June 10, 1985 RBG- 21,246 File Nos. G9.5, G9.8.6.2

Mr. Haroli R. Lonton, Director Office of Nuclea: Reactor Regulation U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Dear Mr. Denton:

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

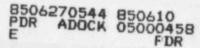
Enclosed is Gulf states Utilities response to an item identified in the River Bend Station (RBS) Safety Evaluation Report (SER). Section 3.6.1 of the RFS SER indicates that a jet impingement analysis is required in the steam tunnel. The enclosed Final Safety Analysis Report (FSAR) revisions provide the results of that analysis. These revisions will be included in a future MSAR americant. This response provides the final RBS response to SER Outstanding Issue No. 3.

Sincerely,

. E. Booher

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

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RBS FSAR

3C.2 HIGH ENERGY PIPE BREAKS AND EFFECTS OF PIPE WHIP AND JET IMPINGEMENT

The following systems are described in the noted sections:

Main Steam Piping System	
Including RPV Vent and	
MS Drain Piping	3C.2.1
Feedwater Piping System	3C.2.2
Reactor Recirculation	3C.2.3
RCIC and Connected RHR Systems	3C.2.4
LPCS/HPCS System	3C.2.5
LPCI Mode of RHR	3C.2.6
RHR System	3C.2.7
RWCU System	3C.2.8
RCIC Head Spray	3C.2.9
3-In and Smaller High Energy	
Piping	3C.2.10

Each section references appropriate isometric drawings with break location and restraints. In addition, composite drawings showing pipe/equipment/room configurations have been provided in Section 3.6A, but are not specifically referenced.

The only pipe breaks of concern in the non-Seismic Category I turbine building are those with the potential to have an impact on safety-related equipment in adjacent buildings. Although the reactor protection SCRAM sensors for the turbine stop and control valves are located in the turbine building, they are not considered essential.

Only the essential jet impingement targets have been mentioned in the following sections. Nonessential targets, such as structural targets, have been evaluated to ensure structural integrity in order to isolate and mitigate jet impingement effects.

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3C.2.1 Main Steam Piping Including RPV Vent and MS Drain Piping

The locations of postulated pipe breaks and pipe whip restraints for the three systems are shown on Fig. 3.6A-12 through 3.6A-16 for main steam, Fig. 3.6A-14a for RPV vent, and Fig. 3.6A-33b through 3.6A-33d for MS drain. The results of the associated stress calculations are summarized in Tables 3.6A-1 through 3.6A-8, Table 3.6A-4a, and Tables 3.6A-17a through 3.6A-17c for the three systems, respectively.

Amendment 16

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An evaluation has also been performed to verify that the plant can be safely shutdown considering the effects of jet impingement from longitudinal cracks in main steam or feedwater piping in the "Break Exclusion Area" of the main steam tunnel. Cracks in this portion of piping are considered highly unlikely due to quality of material and quality assurance requirements specified for the fabrication and installation of this piping. In addition the stress criteria for no postulated breaks as discussed in Section 3.6A have been met. The potential jet impingement targets in this area were identified and assumed to fail to function due to the jet effects. In addition, a structural evaluation was performed to verify that structural integrity was maintained considering the effects of jet impingement, pressure and flooding in this area.