

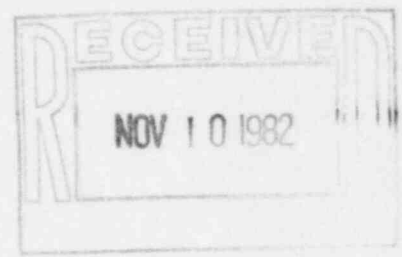


GULF STATES UTILITIES COMPANY

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November 8, 1982
RBG-13,691
File Nos. G9.5, G9.25.1.1

Mr. John T. Collins, Regional Administrator
U. S. Nuclear Regulatory Commission
Region IV, Office of Inspection and Enforcement
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011



Dear Mr. Collins:

River Bend Station Unit 1
Docket No. 50-458
Final Report/DR-39

On October 8, 1982, Gulf States Utilities (GSU) notified the Region IV Office that the potentially reportable condition concerning insufficient beam end gaps between the drywell wall and the primary shield wall (DR-39) had been determined to be reportable under 10CFR50.55(e). The attachment to this letter is the written report required by 10CFR50.55(e)(3). This concludes GSU's reporting on this subject.

Sincerely,

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

JEB/LAE/kt

cc: Director of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

R. L. Brown (SRI)

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ATTACHMENT

DR-39/Insufficient Beam End Gaps

DESCRIPTION OF DEFICIENCY

After installation of a beam in the reactor building at azimuth 184°, el 141 ft 0 in, between the drywell wall and the primary shield wall, insufficient end gap was discovered at the drywell wall. A gap of 1/4 in was established instead of the required 1 1/2 in (refer to N&D No. 2205). Field trimming of beams to suit as-built conditions was done outside the building. The drywell liner surface from which measurements were taken varied over the depth of the beam. This uneven surface, coupled with the transfer of as-built measurements to the beam for cutting, resulted in several of the initially installed beams having insufficient end gaps. The uneven drywell surface also allowed this deficiency to remain undetected by Construction personnel. Permanent attachment of the connection plates to the primary shield wall by welding had been inspected and accepted, thereby prohibiting access to trim the beam to obtain proper end clearance at the opposite end once the deficiency was discovered.

SAFETY IMPLICATIONS

Insufficient beam end gap would not have provided adequate space for displacement caused by thermal growth and seismic movement. Hence if this gap had not been corrected, the beam would have impacted the drywell wall when subjected to thermal/seismic conditions. This would have induced an axial load in the beam causing the stress in the bolts at the fixed end of the beam to go beyond the yield strength of the bolt material. Although a significant amount of the load would have been dissipated through deformation of the connection bolts and the beam itself, the possibility of failure of the fixed-end connection would have existed. Failure of this connection could have caused excessive deflection or collapse of the beam in question, as well as other members attached to that beam, thereby jeopardizing piping and equipment located in the vicinity.

CORRECTIVE ACTION

The problem was corrected by removing one connection plate, allowing removal and proper trimming of the beam. All deficiently installed beams were reworked as required by the Engineers in accordance with the disposition of N&D No. 2205.

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To prevent the recurrence of this problem, Structural Steel Specification No. 210.310, which required a random inspection for configuration and orientation of parts, has been revised via E&DCR No. C-4102. This E&DCR adds to the specification an inspection hold point and requires 100-percent FQC inspection of beam end gaps for sliding connections.

Once the gap problem was clarified, steps were taken by Construction to ensure that all remaining beams were installed as specified by the Engineers.