ENTERGY

Entergy Operations, Inc.
River Bend Station
P.O. Box 220
St. Francisville, LA 70775

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U.S. Nuclear Regulatory Commission
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Subject: River Bend Station - Unit 1, Docket No. 50-456, Commitment Revision
File Nos.: G9.5.2, G9.23

RBG- 40510

Gentlemen:

The enclosure provides a discussion on River Bend's intention to revise a Caution Statement in the Emergency Operating Procedure (EOP) - 0001. This revision will restore the plant to its original design regarding the use of two flow isolation valves in the Residual Heat Removal System. This change will allow the use of motor operated valves that have a greater design margin than the valves that are currently referenced in the EOP for this isolation function.

The EOP revision will be implemented pursuant to 10 CFR 50.59. The enclosed discussion is being provided for information purposes. The scope, basis and method of this change was discussed in a telecon between NRC staff and River Bend's Licensing personnel on March 31, 1994.

Sincerely,

James J. Fisicaro
Director - Nuclear Safety

A045

JJF/mkb
Enclosure
cc: Regional Administrator
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011

NRC Resident Inspector
P.O. Box 1051
St. Francisville, LA 70775

ENCLOSURE

Reference: Letter from J. E. Booker of Gulf States Utilities to R. D. Martin of NRC, Region IV, dated July 24, 1985, 10 CFR 50.55(e) - Final Deficiency Report DR-280 (GSU letter no. RBG-21683).

SUMMARY

In 1985, Gulf States Utilities notified NRC of a potential deficiency associated with the long-term post accident qualification of Limitorque actuators with magnesium rotors (Reference). Specifically, the capability of the Residual Heat Removal (RHR) System isolation valves 1E12*MOVF042A and B to perform their intended function during post accident conditions was questioned. To resolve this potential deficiency, River Bend Station (RBS) opted to procedurally limit the use of these valves during post accident conditions. Further analysis has determined that this potential defciency is not valid for the application at RBS. Since the qualification of these valves at RBS has been established for the entire 100 day post accident period, the procedural limitation should be revised.

This revision will restore the plant to its original design. Additionally, this change will allow the use of motor operated valves that have a greater design margin than the valves that are currently referenced in the EOP for this isolation function.

RBS is proceeding to revise Emergency Operating Procedure (EOP)-0001 by deleting the portion of Caution Statement #2 which limits the post accident manipulation of valves 1E12*MOVF042A and B. This change will be performed pursuant to 10 CFR 50.59.

HISTORICAL POSITION

On July 24, 1985, RBS provided NRC with the final Deficiency Report (DR)-280. The DR described the actions taken by RBS in response to reported failures of Limitorque actuators with magnesium rotors. The failures occurred during environmental qualification testing conducted by General Electric (GE). The failures resulted in the issuance of GE's Service Information Letter (SIL) No. 425 and NRC's Information Notice (IN) 86-02. The failures experienced during this testing occurred after long-term (several days to several weeks) exposure in a harsh environment.

Two valves, 1E12*MOVF042A and B, were determined to be potentially vulnerable to the environmentally induced failures identified in GE's qualification test report. Valves 1E12*MOVF042A and B are the inboard isolation valves in the injection lines of the RHR System. During the mitigation of a Loss of Coolant Accident, these valves are designed to isolate Low Pressure Core Injection (LPCI) when required. Two outboard isolation valves, 1E12*MOVF027A and B, are provided in series with the subject inboard valves.

In lieu of performing a more detailed qualification assessment of valves 1E12*MOVF042A and B, RBS opted to procedurally limit the use of these valves. This limitation was effected by adding Caution #2 to EOP-0001. This caution statement requires the isolation of LPCI flow by closing the outboard valves, 1E12*MOVF027A and B, instead of the inboard valves, 1E12*MOVF042A and B.

BASIS FOR REVISED POSITION

Review of these valves as part of RBS Generic Letter 89-10 Motor Operated Valve Program has determined that the 1E12*MOVF042 valves have a larger design margin than the 1E12*MOVF027 valves for performing the flow isolation function. Originally, the 1E12*MOVF042 valves were procured as the flow isolation valves and the 1E12*MOVF027 valves as block valves; therefore, the motor operators on the 1E12*MOVF042 valves are one size larger that the operators on the 1E12*MOVF027 valves. Based on the design margins associated with these valves, RBS has further evaluated the necessity of Caution Statement #2 in EOP-0001. This evaluation reviewed the environmental qualification of the 1E12*MOVF042 valves. The testing which resulted in the issuance of the GE SIL and NRC's IN far exceeded the environmental conditions postulated for RBS (> 300°F saturated steam vice 165°F RBS environment). Later testing performed by the Limitorque Corporation has demonstrated the qualification of the magnesium rotor actuators for this application at RBS. The Limitorque test simulated an environment more severe than RBS conditions for greater than 100 days and provides a valid basis for qualifying the two 1E12*MOVF042 valves for the maximum hypothetical accident. These additional evaluations have concluded that the 1E12*MOVF042 valves are qualified to perform during post-accident conditions at RBS. Therefore, the limitation imposed on these valves by Caution Statement #2 is unnecessary and should be removed from EOP-0001.