



**GULF STATES UTILITIES COMPANY**

POST OFFICE BOX 2951 • BEAUMONT, TEXAS 77704

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July 12, 1982  
RBG- 12,993  
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-38

Gulf States Utilities Company (GSU) has completed its evaluation of the reportable deficiency (DR-38) concerning a difference found in serration patterns of PS-10RS spring nuts supplied to GSU when compared to nuts previously supplied. The deficiency was identified to the Nuclear Regulatory Commissions Region IV Office on February 23, 1982 as potentially reportable and determined reportable on June 4, 1982. As per GSU's telephone conversation with Mr. Bill Crossman (NRC) and Mr. Rick King (GSU), an extension until July 12, 1982 of the required thirty (30) day written report was requested and granted.

Attached is the thirty (30) day written report as required by 10CFR50.55(e)(3).

This concludes GSU's response on this subject.

Sincerely,

*J. E. Booker*

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

*JTB/RSK/kt*

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

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ATTACHMENT

DR 38/Difference in Serration Patterns of PS-10RS Nuts

Description of the Deficiency:

River Bend Station is using Power Strut PS-280ST embedded channel, which requires nut PS-9227RS-1/2 for achieving connections. The use of PS-9227RS-1/2 was discontinued because it did not perform to its rated capacity (slip load of 1500 lb at 60 ft lb torque and with a safety factor equal to 3). In order to proceed with work, PS-10RS-1/2 nut (cataloged to be used with PS-200ST channel) was tested with PS-280ST channel. The results showed initial slip loads higher than 1875 lb at 50 ft lb torque (N&D No. 1933 dated November 24, 1981), and the nut was qualified for use based on the design load of 600 lb for components installed to date and with vendor concurrence.

Construction was proceeding using PS-10RS-1/2 nut with PS-280ST channel since November 24, 1981. In February 1982, as the nuts were being installed, Construction personnel noticed that the width of groove and the pattern of serrations was different from the nuts qualified for use through testing. For further discussion on this subject, the PS-10RS-1/2 (which were qualified through the testing program) are defined as Type A and the ones which had different serration patterns or depth are defined as Type B. Since both Types A and B PS-10RS-1/2 appear similar from the outside, segregation in the installed position cannot be determined.

The PS-10RS-1/2 Type B were then tested with PS-280ST channel and slip resistance of 800 lb at 50 ft lb torque was recorded. Test also indicated that Type B PS-10RS-1/2 performs to rated capacity when used with PS-200 channel.

Safety Implications:

If the use of PS-10RS-1/2 Type B with channel PS-280ST had continued on River Bend Station, the lower slip resistance offered by these nuts could have adversely affected the safety of operation during the expected lifetime of the plant, since the consequences of such a condition could be an uncontrolled displacement of raceway systems which could damage Class 1E cables.

Corrective Action:

In accordance with the disposition of N&D No. 2198 dated March 3, 1982, all the PS-10RS-1/2 (Types A and B) installed on PS-280ST channels shall be removed and replaced. The use of Power Strut PS-9227-1/2RS spring nuts will be resumed. These nuts have been qualified for use with PS-200ST Channels on River Bend Station and are dichromated gold for easy identification.