



**GULF STATES UTILITIES COMPANY**

GENERATOR, DIESEL, PUMP, TURBINE, VALVE, TRANSMISSION, DISTRIBUTION  
WATER, SEWER, GAS, OIL, STEAM, AIR, ELECTRICITY

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U.S. Nuclear Regulatory Commission  
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Gentlemen:

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

This letter provides Gulf States Utilities Company's (GSU) follow-up response to Generic Letter (GL) 89-13, "Service Water System Problems Affecting Safety-Related Equipment". This GL requested that licensees perform actions to ensure that their service water system is in compliance and will be maintained in compliance with applicable codes and criteria. GSU's initial response to this GL (RBG-32249 dated 2/2/90) outlined our program and gave specific actions to be taken during refueling outage 3 (RF-3) to complete baseline tests and establish continuing programs. This follow-up response is formatted according to the action items as stated in the original generic letter.

Action Item I.

GSU developed as part of our original licensing basis a program to detect and control biofouling in our open-cycle service water system. Other actions to verify flow in portions of our redundant and infrequently used cooling loops were completed. Therefore all actions to be taken per this item in the original response have been completed.

Action Item II.

GSU has developed a heat exchanger testing program which meets the requirements of GL 89-13. This procedure verifies that safety-related heat exchangers cooled by service water are capable of performing their design function. The testing which has been completed for each heat exchanger is discussed below:

Heat Exchanger

Diesel/Generator Jacket Water Cooler  
Control Building Chiller Condensers  
PVLCS Compressor Aftercoolers

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PDR ADOCK 05000458  
PDR

A065  
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All initial testing has been completed on the above heat exchangers and the results have been found to meet the requirements as delineated in our Heat Exchanger Performance Monitoring Program.

#### RHR Heat Exchangers

The data acquisition required for heat balance testing of the RHR heat exchangers has been completed and is being analyzed. This analysis will be complete by February 1, 1991. The visual inspections of these heat exchangers were performed during refueling outage-3 (RF-3) and were found to be satisfactory.

#### Auxiliary Building Unit Coolers Containment Unit Coolers

The testing of the auxiliary building and containment unit coolers began after start-up following RF-3. It was not possible to obtain the required test data during the outage due to variations in service water flow and the lack of adequate heat loads on unit coolers which are required to perform accurate heat balance calculations. This testing is scheduled to be complete by March 1, 1991. The engineering analysis of the unit cooler test data will be completed by May 1, 1991.

#### Action Item III.

GSU has established a routine inspection and maintenance program for open-cycle service water system piping and components. This program ensures that corrosion, erosion, protective coating failure, silting, and biofouling will not degrade the performance of the safety-related components or systems supplied by service water. All actions to be taken per this item in the original response have been completed.

#### Action Item IV.

GSU has confirmed that the service water system will perform its intended function in accordance with the licensing basis for the plant. This action was completed by performance of a "Standby Service Water Single Failure Analysis" and a service water system walkdown performed to verify flow path and system status. All actions to be taken per this item have been completed.

#### Action Item V.

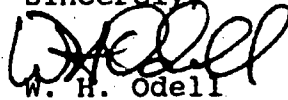
GSU has confirmed that maintenance practices, operating and emergency procedures, and training that involves the service water system are adequate to ensure that safety-related equipment cooled by service water will function as intended and that operators of this equipment will perform effectively. All actions to be taken per this item have been completed.

As part of our ongoing service water improvement program GSU is implementing various short- and long-term projects which will

improve the condition of the service water system and provide a more reliable system overall. Some of the projects being considered include chemical cleaning, piping replacement, and a closed-cycle cooling modification for the service water system.

In summary, GSU is committed to improving our service water system to increase reliability and improving safety. This is a long term project, of which the GL 89-13 actions were only a portion. An additional response to this GL will be provided to you once our last scheduled initial testing has been completed and the evaluations and conclusions have been made. This response will be submitted by May 15, 1991.

Sincerely,



W. H. Odell

Manager - Oversight  
River Bend Nuclear Group

  
WHO/MFS/LAE/LLD/WJS



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