



**GULF STATES UTILITIES COMPANY**

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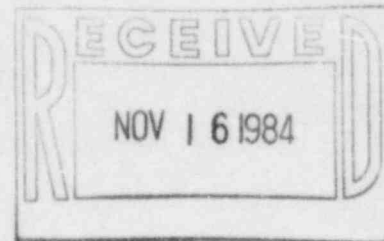
AREA CODE 713 838-6631

November 9, 1984  
RBG-19405  
File Nos. G9.5, G9.25.1.1

Mr. Robert D. Martin, 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. Martin:

River Bend Station Unit 1  
Docket No. 50-458  
Final Report/DR-202



On October 10, 1984, GSU notified Region IV by telephone that it had determined DR-202 to be reportable under 10CFR50.55(e). This deficiency concerns the active thrust bearings in the turbochargers for the standby diesel generators supplied by Transamerica Delaval, Incorporated. The attachment to this letter is GSU's final 30-day written report pursuant to 10CFR50.55(e) with regard to this deficiency.

Sincerely,

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

JEB/PJD/lp

Attachment

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

NRC Resident Inspector-Site

INPO

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## ATTACHMENT

November 9, 1984  
RBG-19405

### DR-202 Active Thrust Bearings in the Turbochargers for the Standby Diesel Generators supplied by Transamerica Delaval, Incorporated

#### Background and Description of the Problem

The problem involves the discovery of damaged bearings in the turbochargers for the standby diesel generators supplied by Transamerica Delaval, Incorporated. While turning standby diesel A on starting air, the vendor's representative noticed a squeaking noise in the turbocharger. Suspecting that there was dirt inside the turbocharger, it was removed from the engine and disassembled for inspection and cleaning. At this point, it was discovered that the active thrust bearing (on the turbine side) had been worn to the point of requiring replacement, as verified by an Elliot Co. representative. The worn-out bearing is unusual because the diesel had only 50 hours of running time plus approximately 35 test starts, all at the factory. Diesel B was subsequently disassembled, and its turbocharger also had a worn-out thrust bearing.

#### Safety Implications

Had this problem remained uncorrected, the bearings for both engines would have worn to the point of failure earlier than expected, and the turbine shaft and oil seal would heatup and begin to seize. This would render the turbocharger unable to spin freely at 16,000/18,000 rpm, causing engine power loss or stalling. Under this condition it may not be able to supply the power required to operate the QA Category 1 plant shutdown systems during loss of offsite power.

#### Corrective Action

N&D Nos. 6258 and 6259 were generated and dispositioned for rework, calling for replacement with identical parts under the supervision of an Elliot representative.

Furthermore, factory test starts were done with the original turbocharger prelube system and continuously drip fed by the before and after oil system. Transamerica DeLaval, Inc. (TDI), has submitted revised design Drawing No. 102675 to supersede the previous design, Drawing No. 102269, which modifies the turbocharger prelube system.

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This modification involves increasing the diameter of system tubing and adding a bypass line with a valve across a flow orifice. Additional proposed piping modifications to increase oil flow together with revised operating procedures, will improve the lubrication of the turbocharger bearings. These changes will be implemented in accordance with E&DCR No. C-22,9648 upon receipt of TDI's acceptance.