

GULF STATES UTILITIES COMPANY

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August 30, 1985

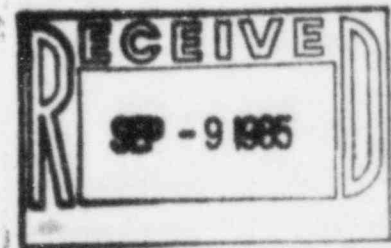
RBG- 22,002

File Nos. G9.5, G9.25.1.1

Mr. Robert D. Martin, Regional Administrator
U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Dear Mr. Martin:

River Bend Station - Unit 1
Docket No. 50-458
*Interim Report/DR-314



On July 18, 1985, GSU provided Region IV a 30-day written report on DR-314 concerning leakage of the fluid Fyrquel from pump seals to the pump drive motor in Borg-Warner electrohydraulic operators for Copes-Vulcan modulating valves. The attachment to this letter is GSU's revised 30-day written report pursuant to 10CFR50.55(e)(3) with regard to this deficiency.

An interim or final status report will be provided by September 16, 1985.

Sincerely,

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

JEB PJO
JEB/PJD/lp

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

NRC Resident Inspector-Site

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ATTACHMENT

August 30, 1985
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DR-314/Electrohydraulic Operators

Background and Description of Problem

This deficiency concerns leakage of the fluid Fyrquel from pump seals to the pump drive motor in Borg-Warner electrohydraulic operators for Copes-Vulcan modulating valves 1SWP*PVX32B and D and 1SWP*PVY32A and D. This problem was identified by the Startup and Test (SU&T) Group at the River Bend Station (RBS) site. A report from the field identified valves 1SWP*PVX32B and D and 1SWP*PVY32A and D as having a fluid leak from the pump seal to the pump motor, thereby failing the valve in the as-is position instead of the preferred fail position. These modulating valves are bought under Specification No. 247.497 from Copes-Vulcan. Borg-Warner is the subcontractor for the valves' electrohydraulic operators. The electrohydraulic operator contains the pump motor and Fyrquel fluid to place the valve actuator in the desired position in response to an electrical signal corresponding to process requirements. A change in the process requirements necessitates a change in the valve actuator position, which is achieved by the valves' electrohydraulic operator. Failure of electric power causes the valves to fail in the preferred design position, i.e., fail closed or fail open. Because of this fluid leak, pump motors have an open circuit and thus are incapacitated, thereby failing in the as-is position.

Based on input received from the vendor, dirty hydraulic fluid and improper installation of the fluid were the underlying causes of the deficiency.

There are eight valves from the same vendor in the service water system, and ten similar valves in the penetration valve leakage control system, main steam valve leakage control system, and control building chilled water system. While the ten other valves have not experienced similar failures, hydraulic fluid samples are being obtained from the valves for laboratory analysis.

Safety Implication

Failure of valves 1SWP*PVX32B and D and 1SWP*PVY32A and D in the as-is position instead of the designed fail open or fail closed position will render the control building chilled water system, and therefore control building HVAC operation, erratic or ineffective. Improper operation of the control building HVAC System may adversely affect safety-related operation of equipment.

Corrective Action

For the eight valves in the service water system, valves 1-SWP*PVX32A through D were replaced with a spool piece with a blank and valves 1-SWP*PVY32A through D were replaced with a spool piece. The standby service water temperature will be monitored daily by operators who will take appropriate action should the water temperature approach 56°F. In the event that the chilled water system is unavailable, Control Building cooling will be provided by supplying service water directly to the air conditioning units cooling coils.

Actuator assemblies for the eight valves in the service water system were shipped to Borg-Warner for repair in accordance with Nonconformance and Disposition Report No. 12,146. Also, the motor will be reoriented in a motor-over-valve configuration to prevent the possibility of hydraulic fluid getting into the motor should any leakage occur.

For the other ten valves, increased surveillance will be performed by visual examination for evidence of leaking hydraulic fluid. Additional corrective action may be required for these ten valves.