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May 14, 1984

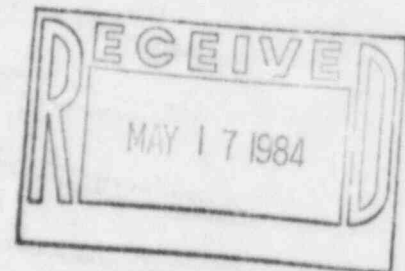
RBG-17813

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-141



On April 13, 1984, GSU notified Region IV by telephone it had determined DR-141 concerning internal attachment bolts in check valves supplied by Velan Engineering, Limited to be reportable under 10CFR50.55(e). The attachment to this letter is GSU's final 30-day written report pursuant to 10CFR50.55(e) with regard to this deficiency.

Sincerely,

J. E. Booker

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

JTB/PDD/kt

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

NRC Resident Inspector-Site

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ATTACHMENT

DR-141/Internal Attachment Bolts in
Check Valves Supplied by
Velan Engineering, Limited

Background and Description of the Problem

This deficiency concerns a 4-inch swing check valve supplied by Velan Engineering, Limited, with one of two hanger block bolts having a length shorter than the length required by industry standard ANSI B1.1-74.

This problem was detected during the disassembly of a valve (1SWP*V516) in the service water system in preparation for the system flush. There are four additional valves of the same description (1SWP*V437A and B, 1CSL*V10A and B) and two spares presently at the site.

For the identified condition, it was established that one bolt for the hanger block had a length of 1 1/4 inches instead of 1 1/2 inches, as specified. Thus, only two threads protruded into the tapped hole in the valve body rather than the five threads (equivalent to one diameter) as required by ANSI B1.1-74. This resulted in an improper connection of the hanger block to the valve body. A failure in the hanger block bolts could result in the valve failing to function as intended in the service water system.

Safety Implication

Check valves 1SWP*V437 and 1SWP*V516 are installed in series with Category I motor-operated valves (1SWP*MOV73A and B in accordance with FSK 9-10L and N) as double valve protection to separate standby service water loops A and B running to cooler 1HVR*UC5. Following a postulated LOCA involving a design basis break in the reactor recirculation system, at least one of the two core spray systems, either the HPCS or the LPCS, must be operable. If single failure is assumed to occur for the Division I standby diesel generator, both the LPCS system and the Division I standby service water supply to cooler HVR*UC5 become inoperative. A concurrent failure of check valve 1SWP*V516 hanger block in a manner that constricted flow from the Division II standby service water supply to cooler HVR*UC5 could result in disabling the HPCS system due to excessive ambient temperature in the HPCS pumproom, which is served by cooler HVR*UC5.

Corrective Action

The 1 1/4 inch bolt has been replaced with the proper 1 1/2 inch bolt, supplied by Velan, correcting the deficiency in the hanger block connection to the valve body for valve 1SWP*V516.

Nonconformance and Disposition Report No. 4395 will be revised to inspect the additional four valves (1SWP*V437A and B and 1CSL*V10A and B) and two spares and to replace the bolts if necessary.

Velan indicated that for a short period of time, the 1 1/2 inch bolts were out of stock and postulated that the assembler used the 1 1/4 inch bolts instead.

Velan has since placed the bolt length for hanger brackets on the inspection checklist. Velan is also investigating a simple method for identifying bolt size on the bolt head for confirming the size of the bolt used without removal. Velan is confident that these actions will preclude recurrence of the short bolt problem.