



GULF STATES UTILITIES COMPANY

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May 27, 1985

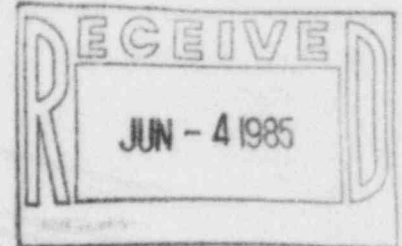
RBG- 21,130

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
Final Report/DR-282



On March 4, 1985, GSU provided Region IV with a 30-day written report on DR-282 concerning the lack of an antisiphon device in spent fuel cooling lines to and from the fuel pools in the containment and fuel buildings. The attachment to this letter is GSU's revised final report pursuant to 10CFR50.55(e)(3) with regard to this deficiency.

Sincerely,

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

JEB/PDD/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

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DR-282/Antisiphon Device in Spent Fuel Cooling Lines

Background and Description of the Problem

The deficiency concerns the lack of an antisiphon device in spent fuel cooling (SFC) lines to and from the fuel pools in the containment and fuel buildings. The problem was discovered by the GSU Startup and Test Group during its walkdown prior to testing.

The 1/2-in. antisiphon holes shown on lines 1SFC-012-14-3, 1SFC-006-021-3, and 1SFC-012-1-3 (FSK-34-2A) and on lines 1SFC-002-69-4 and 1SFC-006-60-4 (FSK-34-2C) were not drilled before system turnover to Gulf States Utilities. These holes are also shown on SFC 12210-EP-77 series piping drawings, which are used for pipe fabrication and erection.

The piping for this system was initially fabricated by B. F. Shaw Company but could not be used due to certain dimensional and field problems. The replacement pieces were procured from another ASME supplier through a field purchase order. The elbows were procured without holes. The ASME control drawings showed the antisiphon holes; however, Construction inadvertently failed to drill the 1/2-inch holes in the elbows.

The error on the part of Construction may be attributed, in part, to the uniqueness of these holes, as the SFC system is the only Category I system that uses holes drilled in the pipe as an antisiphoning device.

Safety Implication

The 1/2-in. holes provided in the SFC pool supply and return lines are used as an antisiphoning device to ensure that in the event of a pipe break, the pool water level is maintained approximately 10 ft. 0 in. above the top of the spent fuel. This water submergence is required in order to minimize airborne contaminants and gaseous radiation to within acceptable levels defined in 10CFR100. Lines 1SFC-006-60-4 and 1SFC-002-69-4 are return lines to the containment pools and pose no significant problem as a result of a pipe break with no antisiphoning device due to the pipe termination point in the containment pools. Line 1SFC-006-21-3 is the return line to the cask pool and poses no significant problem due to the pipe termination point in the pool.

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However, lines 1SFC-012-1-3 and 1SFC-012-14-3 terminate 17 ft. 0 in. below the high density fuel racks in the spent fuel pool in the fuel building and could result in unacceptable radiation levels in the fuel building with no antisiphoning device and a coincident pipe break. Depending on the location of the break, the water level in the pool could drain to below the fuel storage racks.

Corrective Action

After SFC system turnover to GSU, Construction Work Request Nos. 8766 and 8767 were generated, and the holes were drilled as required by system design drawings.