GULF STATES UTILITIES COMPANY

RIVER BEND STATION POST OFFICE BOX 220 ST FRANCISVILLE, LOUISIANA 70775

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September 4, 1992

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U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Gentlemen:

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

Please find enclosed Licensee Event Report No. 92-013 for River Bend Station - Unit 1. This report is submitted pursuant 10CFR50.73, and as per discussions with Mr. Phil Harrell of the NRC.

Sincerely,

W. H. Odell
Manager - Oversight
River Bend Nuclear Group

LAE/rDG/FRC/DCH/DCJ/pj

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cc: U.S. Nuclear Regulatory Commission
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Arlington, TX 76011

NRC Resident Inspector
P.O. Box 1051
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Austin, TX 78757

Louisiana Department of Environmental Quality
Radiation Protection Division
P.O. Box 82135
Baton Rouge, LA 70884-2135
ATTN: Administrator

NRC FORM 366 (5-89)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
RIVER BEND STATION	0 5 0 0 0 4 5 8	1 OF 0 3

TITLE (4)

SURVEILLANCES NOT PERFORMED ON AUTOMATIC WET PIPE SPRINKLER SYSTEMS

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
										0 5 0 0 0
0 7	3 0	9 2	9 2	— 0 1 3	— 0 0	0 9	0 4	9 2		0 5 0 0 0

OPERATING MODE (9)	5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
L. A. England, Director - Nuclear Licensing	9 0 4 3 8 1 1 - 1 4 1 4 5

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On July 30, 1992, it was determined that a reportable condition exists concerning automatic wet pipe sprinkler systems AS-5, AS-6A, AS-6P, AS-6C and AS-12. These systems were not receiving surveillance inspections as required by Technical Specification 4.7.6.2.c.3. This condition constitutes a missed surveillance; therefore, this report is submitted pursuant to 10CFR50.73 (a)(2)(i)(b) as operation prohibited by the Technical Specifications.

Surveillance procedure STP-251-3601 will be revised to include the automatic wet pipe sprinkler systems in the surveillance test procedure.

The automatic wet pipe sprinkler systems were found to be operable through walkdown inspections performed by Design Engineering when the condition was discovered. Although a number of sprinkler head deficiencies were identified during the walkdown inspection, overall system operability requirements were satisfied.

REPORTED CONDITION

Technical Specification 4.7.6.2.c.3 requires sprinkler and spray systems to be inspected once per 18 months to verify unobstructed spray patterns. Automatic wet pipe sprinkler systems AS-5, AS-6A, AS-6B, AS-6C and AS-12 were not included in surveillance procedure STP-251-3601. These systems provide sprinkler coverage for selected areas on the 70, 9[illegible] and 116 foot elevations of the control building, the 70, 95 and 113 foot elevations of the fuel building, and the 95, 114 and 141 foot elevations of the auxiliary building. Upon further investigation, it was determined that these systems had never been included in the surveillance procedure and no evidence was found to suggest that the required surveillance inspections were being performed by any other procedure. On July 30, 1992, this condition was determined to be reportable. Although the automatic wet pipe sprinkler systems were found to be operable at the time the condition was discovered, it was determined that the required surveillance inspections had never been performed. This condition constitutes a missed surveillance required by the plant Technical Specifications; therefore, this report is submitted pursuant to 10CFR50.73 (a)(2)(i)(b) as operation prohibited by the Technical Specifications.

INVESTIGATION

During performance of sprinkler system inspections specified in the disposition of condition report (CR) 91-0127, several obvious deficiencies with sprinkler heads on the automatic wet pipe sprinkler systems (AS systems) were identified. The discovery of these deficiencies prompted a review of sprinkler system surveillance test procedures to determine why such deficiencies were not identified during routine surveillance. Upon review of surveillance procedure STP-251-3601, "Fire Protection Sprinkler Header/Nozzle Inspection," it was discovered that the AS systems were not included in the procedure.

Technical specification 4.7.6.2.c.3 requires that each spray and sprinkler system shall be demonstrated operable at least once per 18 months by a visual inspection of each deluge nozzle's spray area to verify that the spray pattern is not obstructed. The term "deluge nozzle's" in technical specification 4.7.6.2.c.3 was interpreted to mean "deluge system nozzle". As a result of this interpretation, the AS systems were not included in the surveillance procedure.

CORRECTIVE ACTION

The subject wet pipe sprinkler systems were determined to be operable when the condition was identified. This operability determination was made based upon inspections of the subject systems by Design Engineering. Although a number of sprinkler head deficiencies were identified, the deficiencies were not considered to represent a condition by which the sprinkler systems would be considered inoperable per the Bases to Technical Specification 3/4.7.6.2. The sprinkler systems would have operated to contain a postulated fire and limit fire damage to within the area of fire origin. Based upon the as-found condition of the sprinkler systems, GSU has concluded that the systems were operable during the time period that the required surveillance inspections were not being performed.

Surveillance test procedure (STP)-251-3601 will be revised to include the AS systems in the 18 month inspection for obstructions to spray pattern. In addition, a Technical Specification interpretation will be developed to clarify GSU's interpretation of the Technical Specification terminology and serve as a barrier to prevent future misinterpretation. These actions will be implemented prior to the next performance of STP-251-3601 (by 2/8/94).

ROOT CAUSE

Barrier analysis methodology was utilized in the determination of root cause for the reported condition. The principle barrier that should have prevented the condition was the Technical Specifications.

Technical Specification 4.7.6.2.c.3 states "By a visual inspection of each deluge nozzle's spray area to verify that the spray pattern is not obstructed.". The term "deluge nozzle's" is ambiguous and is not consistent with any industry standard terminology. This same term is also used in the NRC standard Technical Specifications applicable to River Bend Station, GE-STS (BWR/6). Taken literally, this term could be identified with "deluge system", which is an industry standard term. The term "deluge nozzle's" cannot be properly defined by the context of Technical Specification 4.7.6.2.c.3. Other sections of Technical Specification 3/4.7.6.2 must be considered to extract the intended meaning of the term.

Additionally, the Technical Specification does not use consistent terminology. The term "deluge nozzle's" appears in section 4.7.6.2.c.3; however, the term "spray and sprinkler" appears in other sections of Technical Specification 3/4.7.6.2. Taken literally, the words "spray", "sprinkler", "deluge" and "nozzle" would all have separate definitions.

Based upon the above discussion, the following root cause is identified. The scope and applicability of Technical Specification 4.7.6.2.c.3 were incorrectly interpreted. A contributing factor that led to this incorrect definition was the ambiguous terminology in Technical Specification section 3/4.7.6.2.

SAFETY ASSESSMENT

The performance objective of the sprinkler systems is to contain a postulated fire and limit fire damage within a given area. The Bases to Technical Specification 3/4.7.6.2 state that the operability of the fire suppression systems ensures that adequate fire suppression capability is available to confine and extinguish fires occurring in any portion of the facility where safety related equipment is located and that the collective capability of the fire suppression systems is adequate to minimize potential damage to safety related equipment.

The subject wet pipe sprinkler systems were determined to be operable when the condition was identified. This operability determination was made based upon inspections of the subject systems by Design Engineering. Although a number of sprinkler head deficiencies were identified, the deficiencies were not considered to represent a condition by which the sprinkler systems would be considered inoperable per the Bases to Technical Specification 3/4.7.6.2. The sprinkler systems would have operated to contain a postulated fire and limit fire damage to within the area of fire origin. Based upon the as-found condition of the sprinkler systems, GSU has concluded that the systems were operable during the time period that the required surveillance inspections were not being performed.