

**GULF STATES UTILITIES COMPANY**



RIVER BEND STATION POST OFFICE BOX 228 ST FRANCISVILLE, LOUISIANA 70781  
AREA CODE 504 626-6084 646-8861

January 27, 1992

RBG- 36328

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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. 91-023 for River Bend Station - Unit 1. This report is submitted pursuant to 10CFR50.73.

Sincerely,

W.H. Odell

Manager - Oversight

River Bend Nuclear Group

*W.H. Odell*  
LAE/PDG/GAB/DCH/LWW/kvm

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## LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 800 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT SECTION (P-530) U.S. NUCLEAR REGULATORY COMMISSION WASHINGTON, DC 20545 AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104) OFFICE OF MANAGEMENT AND BUDGET WASHINGTON, DC 20503

FACILITY NAME (1) RIVER BEND STATION										DOCKET NUMBER (2) 0500015181				PAGE (3) 1 OF 03		
TITLE (4) REACTOR WATER CLEANUP PUMPS OUTBOARD SUCTION VALVE ISOLATION DURING STANDBY LIQUID CONTROL VALVE OPERABILITY SURVEILLANCE DUE TO AN INADEQUATE PROCEDURE																
EVENT DATE (5)			LER NUMBER (6)				REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)						
MONTH	DAY	YEAR	YEAR	SEQUENT. NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES				DOCKET NUMBERS			
12	26	91	91	023	00	01	27	92					0500015181			
OPERATING MODE (9) 4			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 50.73 (Check one or more of the following) (11)													
POWER LEVEL (10) 0			20.402(b)				20.406(a)				<input checked="" type="checkbox"/> 50.73(a)(2)(iv)				73.71(b)	
			20.406(a)(1)(i)				50.36(a)(1)				<input type="checkbox"/> 50.73(a)(2)(i)				73.71(a)	
			20.406(a)(1)(ii)				50.36(a)(2)				<input type="checkbox"/> 50.73(a)(2)(ii)				OTHER (Specify in Abstract below and in Text, LRC Form 365a)	
			20.406(a)(1)(iii)				50.73(a)(2)(iii)				<input type="checkbox"/> 50.73(a)(2)(iii)(A)					
			20.406(a)(1)(iv)				50.73(a)(2)(iv)				<input type="checkbox"/> 50.73(a)(2)(iv)(B)					
			20.406(a)(1)(v)				50.73(a)(2)(v)				<input type="checkbox"/> 50.73(a)(2)(v)					
LICENSEE CONTACT FOR THIS LER (12)																
NAME L.A. ENGLAND, DIRECTOR - NUCLEAR LICENSING										TELEPHONE NUMBER						
										AREA CODE 504		381-4145				
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																
CAUSE	SYSTEM	COMPONENT	MANUFAC. TOLER.	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFAC. TOLER.	REPORTABLE TO NRC							
SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR		
<input type="checkbox"/> YES (If yes, complete expected submission date)										<input checked="" type="checkbox"/> NO						

ABSTRACT (Limit to 1400 words) - approximately fifteen single spaced typewritten lines (16)

At 1212 on 12/26/91 with the unit in Operational Condition 4 (Cold Shutdown), 1G33\*MOVFO04 (reactor water cleanup pumps outboard suction valve) received an isolation signal from a standby liquid control system manual initiation signal. The valve went fully closed and the reactor water cleanup (RWCU) pumps tripped on low flow. The isolation of the valve constituted an engineered safety feature (ESF) actuation. Therefore, this report is submitted pursuant to 10CFR50.73(z)(2)(iv).

The root cause of this event was procedure inadequacy. Corrective actions included procedure clarification and a review of all related procedures.

The standby liquid control (SLC) system and the reactor water cleanup (RWCU) system responded per design and 1G33\*MOVFO04 (reactor water cleanup pumps outboard suction valve) isolated properly.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONDER TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATES TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F530) U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555 AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104) OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

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TEXT (If more space is required, use additional NRC Form 388A (6-89))

REPORTED CONDITION

At 1212 on 12/26/91 with the unit in Operation Condition 4 (Cold Shutdown), surveillance test procedure (STP)-201-3302 ("Standby Liquid Control Valve Operability") was being performed as a routine scheduled cold shutdown surveillance. The procedure defined required actions to prevent starting the standby liquid control (SLC) pump and firing the squib valves. A manual initiation signal was input to cause valve 1C41\*MOVFO01A (storage tank outlet valve) to open for stroke timing. The manual initiation signal also caused 1G33\*MOVFO04 (RWCU pumps outboard suction valve) to receive an automatic isolation signal and to stroke fully closed.

The SLC system is an independent reactivity control system for use in the unlikely event that a reactor shutdown is required and the control rod drive system becomes inoperable. The system will inject sodium pentaborate solution (a neutron absorber) to provide sufficient negative reactivity to shut down the reactor. The automatic isolation of the water cleanup (RWCU) system on a manual SLC initiation is required to prevent the RWCU system from removing the sodium pentaborate solution from the reactor vessel inventory.

INVESTIGATION

Surveillance test procedure (STP)-201-3302 (standby liquid control valve operability) is required by Technical Specification Surveillance Requirement 4.0.5. The required frequency of performance is:

- Every cold shutdown but not more frequently than once per 92 days for acceptable valves, and
- Every cold shutdown but not more frequently than once per 31 days for conditionally acceptable valves.
- Local position indication is verified every refueling outage or a period not exceeding two years.

STP-201-3302 directs the operator to open the supply breakers to standby liquid control (SLC) pumps. This is to prevent the pump from starting and the squib valves from firing. These steps were performed by the operator. In order to stroke valve 1C41\*MOVFO01A (storage tank outlet valve), the SLC Pump "A" control switch is taken to the "run" position. This is a manual initiation signal to the SLC system. This is also an automatic isolation signal to 1G33\*MOVFO04 (RWCU pumps outboard suction valve). The isolation was verified to have occurred per design. The STP was concluded and the isolation was reset. The RWCU system was then restored to service.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-330) U.S. NUCLEAR REGULATORY COMMISSION WASHINGTON, DC 20555 AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104) OFFICE OF MANAGEMENT AND BUDGET WASHINGTON, DC 20503

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (3)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
RIVER BEND STATION	0 5 0 0 0 4 5 8 9 1	0 2 3	0 4	0 3	OF	0 3	

TEXT (if more space is required, use additional NRC Form 306A's) (17)

The investigation revealed that the procedure did not require the RWCU system be secured and isolated, nor did it caution the operator about the potential isolation. A review of previous revisions indicated that cautions or prerequisites about RWCU isolations were never in place.

**ROOT CAUSE**

Previous performances of this STP were reviewed. Some performances were with RWCU secured and isolated. In other cases, RWCU was allowed to isolate as a preplanned sequence for testing. The methods of performance were inconsistent, and the operator was relied upon to remember that a manual SLC initiation results in an isolation of the RWCU pumps suction valve. Therefore, the root cause of this event was an inadequate procedure. The procedure did not require securing and isolating the RWCU system, nor were there any prerequisites or cautions to alert operators of the potential for the RWCU isolation.

A review of previous LERs revealed no similar events.

**CORRECTIVE ACTION**

The surveillance test procedure, (STP)-201-3302 (Standby Liquid Control Valve Operability) was changed to prevent the manual initiation of the standby liquid control (SLC) system from automatically isolating the reactor water cleanup (RWCU) pumps outboard suction valve. The change also restored the manual initiation/automatic isolation interaction upon completion of the testing.

All other SLC system surveillance procedures were reviewed to ensure that the RWCU system would not receive an inadvertent isolation signal from future testing. No procedural errors were found.

**SAFETY ASSESSMENT**

The standby liquid control (SLC) system and the reactor water cleanup (RWCU) system responded per design and 1G33\*MOVFO04 (reactor water cleanup pumps outboard suction valve) isolated properly.