



GULF STATES UTILITIES COMPANY

RIVER BEND STATION POST OFFICE BOX 220 ST. FRANCISVILLE, LOUISIANA 70775
AREA CODE 504 535-6094 345-8451

April 19, 1991
RBG- 34,869
File Nos. G9.5, G9.25.1.3

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. 91-004 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
EAE/PDG/CAB/DCH/CLB/pj

cc: U.S. Nuclear Regulatory Commission
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LICENSEE EVENT REPORT (LER)

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.

FACILITY NAME (1)

RIVER BEND STATION

DOCKET NUMBER (2)

0 5 0 0 0 4 5 8

PAGE (3)

1 OF 3

TITLE (4)

ISOLATION OF THE RCIC TURBINE MAIN STEAM SUPPLY LINE OUTBOARD CONTAINMENT ISOLATION VALVE

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)
03	21	91	91	004	000	04	19	91		050000
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)										
OPERATING MODE (9)		1	20.402(b)			20.405(c)		<input checked="" type="checkbox"/>	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)		100	20.406(a)(1)(i)			50.36(c)(1)			50.73(a)(2)(v)	73.71(c)
			20.406(a)(1)(ii)			50.36(c)(2)			50.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
			20.406(a)(1)(iii)			50.73(a)(2)(i)			50.73(a)(2)(vii)(A)	
			20.406(a)(1)(iv)			50.73(a)(2)(ii)			50.73(a)(2)(vii)(B)	
			20.406(a)(1)(v)			50.73(a)(2)(iii)			50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME

L. A. England, Director - Nuclear Licensing

TELEPHONE NUMBER

AREA CODE

5 0 4 3 8 1 - 4 1 4 5

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC

SUPPLEMENTAL REPORT EXPECTED (14)

EXPECTED SUBMISSION DATE (15)

MONTH DAY YEAR

☐ YES (If yes, complete EXPECTED SUBMISSION DATE)☒ NO

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

At 1420 on March 21, 1991, with the reactor in Operational Condition 1 (Power Operation) and the reactor core isolation cooling (RCIC) system isolated for maintenance, an unplanned engineered safety feature (ESF) actuation occurred when the RCIC turbine main steam supply line outboard containment isolation valve, 1E51*MOV064, isolated. This report is submitted pursuant to 10CFR50.73(a)(2)(iv) since this event constitutes an ESF actuation.

It is postulated that after the RCIC system was isolated for maintenance by shutting 1E51*MOV063, cooling in the steam supply line caused steam to condense and flow into the variable leg instrument line which resulted in negative differential pressure surges in flow transmitter 1E51*PDTN084A. The negative trip setpoint of the trip unit was reached which caused the ESF actuation. This is the probable root cause of the event. A caution has been added to RCIC system operating procedures that both RCIC turbine main steam supply line containment isolation valves 1E51*MOV063 and 1E51*MOV064 should be isolated when the system is removed from service for maintenance to prevent unexpected ESF actuations.

The ESF actuation occurred per design. The RCIC system was inoperable and isolated for maintenance per the action statement of Technical Specification 3.7.3. Therefore, the health and safety of the public was not adversely affected.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) RIVER BEND STATION	DOCKET NUMBER (2) 05000451891	LER NUMBER (3)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		89	004	0	012	OF	03

TEXT (If more space is required, use additional NRC Form 305A's) (17)

REPORTED CONDITION

At 1420 on March 21, 1991, with the reactor in Operational Condition 1 (Power Operation) and the reactor core isolation cooling (RCIC) system (*BN*) isolated for maintenance, an unplanned engineered safety feature (ESF) actuation occurred when an isolation signal was received which caused the RCIC turbine main steam supply line outboard containment isolation valve, 1E51*MOVFO64, (*ISV*) to stroke closed. This report is submitted pursuant to 10CFR50.73(a)(2)(iv) since this event constitutes an ESF actuation.

INVESTIGATION

At the time of the event, the RCIC turbine main steam supply line inboard containment isolation valve, 1E51*MOVFO63 (*ISV*) was closed and the RCIC system (*BN*) was isolated. A limiting condition for operation (LCO) was issued for planned system maintenance with a tagging clearance in place. The RCIC turbine main steam supply line outboard containment isolation valve, 1E51*MOVFO64 (*ISV*), had been left open to minimize cycling of the valve since it had a bonnet stem packing leak. Note that operating procedures for the RCIC system did not specify if one or both containment isolation valves should be shut during system maintenance.

At 1420 on March 21, 1991, approximately seven hours after the system had been isolated, a Division I isolation trip signal was received, causing the RCIC turbine main steam supply line outboard isolation valve, 1E51*MOVFO64 (*ISV*), to stroke closed. The trip signal was reported to have been received from the RCIC steam supply line differential pressure high trip unit 1E31*ESN684 (*PDS*) (Rosemount trip unit model 510).

It is postulated that after the RCIC system was isolated for maintenance by shutting 1E51*MOVFO63, cooling in the steam supply line caused steam to condense and flow into the variable leg instrument line which caused pressure oscillations resulting in negative differential pressure surges in flow transmitter 1E51*PDTN084A (*FT*). The negative trip setpoint of the trip unit was reached which caused the ESF actuation. This is the probable root cause of the event. Upon completion of RCIC maintenance activities, a check of both trip units revealed both to be indicating 0" of water, which is the normal no flow condition.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED ONE NO. 3150-0104

EXPIRES 6/31/88

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

NOTE: IF more space is required, use additional NRC Form 388A (2) (17)

A review of previous LERs has identified one event having limited similarity. LER 90-046 reported an isolation of valve 1E51*MOVF063 (*ISV*). The isolation was caused by the RCIC equipment room differential temperature switch 1E31*N603B. The cause of the actuation of this switch is indeterminate. As a precaution, the temperature switch was replaced. The similarity between LER 90-046 and the current event is limited because the isolation signals originated from different trip units.

CORRECTIVE ACTION

A caution has been added to RCIC system operating procedures that both RCIC turbine main steam supply line containment isolation valves 1E51*MOVF063 and 1E51*MOVF064 should be isolated when the system is removed from service for maintenance to prevent unexpected ESF actuations.

SAFETY ASSESSMENT

The ESF actuation occurred per design. The RCIC system was inoperable and isolated for maintenance per the action statement of Technical Specification 3.7.3. Therefore, the health and safety of the public was not adversely affected.