



GULF STATES UTILITIES COMPANY

NEW RIVER BEND STATION POST OFFICE BOX 220 ST. FRANCISVILLE, LOUISIANA 70775
AREA CODE 504 636-6094 346-8651

December 4, 1990
RBG- 34116
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
Document No. 50-458

Please find enclosed Licensee Event Report No. 90-033 for River Bend Station - Unit 1. This report is being submitted pursuant to 10CFR50.73.

Sincerely,

W. H. Odell
for

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

PDG TRD RCH WTS
LAE/PDG/DRD/DCH/LDS/pg

cc: U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76011

NRC Resident Inspector
P.O. Box 1051
St. Francisville, LA 70775

INPO Records Center
1100 Circle 75 Parkway
Atlanta, GA 30339-3064

Mr. C. R. Oberg
Public Utility Commission of Texas
7800 Shoal Creek Blvd., Suite 400 North
Austin, TX 78757

9012120034 901204
PDR ADOCK 05000458
S PDC

IE 22

//

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-630), 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 0 3
---	--	--------------------------------------	----------------------

TITLE (4)
RWCU Isolation During Modifications to Power Supply Wiring in a Control Room Panel

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)
11	04	90	90	033	00	12	04	90			0 5 0 0 0

OPERATING MODE (9) 5

POWER LEVEL (10) 10

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5 (Check one or more of the following) (11)

20.402(b)	20.405(c)	<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)(v)	73.71(c)
20.406(a)(1)(ii)	50.36(a)(2)	<input type="checkbox"/>	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
20.406(a)(1)(iii)	50.73(a)(2)	<input type="checkbox"/>	50.73(a)(2)(viii)(A)	
20.406(a)(1)(iv)	50.73(a)(2)(iii)	<input type="checkbox"/>	50.73(a)(2)(viii)(B)	
20.406(a)(1)(v)	50.73(a)(2)(ii)	<input type="checkbox"/>	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)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15) MONTH 0 DAY 2 YEAR 2 8 9 1

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

On 11/04/90 at 1140 with the unit in Operational Condition 5 (Refueling), an isolation of the reactor water cleanup system (RWCU) occurred. The isolation occurred while performing plant modifications to power supply wiring in control room panel 1H13-P642. The power supply circuit in this panel provides power to several systems including the leak detection system (LDS) and the RWCU system and is daisy-chained from one component to another. The modification involved de-terminating and re-terminating power supply leads on several LDS components, and when the first de-termination was made, power was lost to the RWCU system through the daisy-chain. Since the safety related components of the RWCU system fail to a safe position upon a loss of power, an isolation resulted. This isolation constitutes an engineered safety feature (ESF) actuation; therefore, this event is reportable pursuant to 10CFR50.73(a)(2)(iv).

The RWCU isolation occurred as designed and was restored following retermination of the lead. Therefore, this event did not adversely affect the health and safety of the public.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATE BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 60.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F-630), 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 (6)			PAGE (2)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
RIVER BEND STATION	06000458	90	033	00	02	OF 03

TEXT (if more space is required, use additional NRC Form 366A's) (17)

REPORTED CONDITION

On 11/04/90 at 1140 with the unit in Operational Condition 5 (Refueling), an isolation of the reactor water cleanup system (RWCU) (*CE*) occurred. The isolation occurred while performing plant modifications to power supply wiring in control room panel (*PL*) 1H13-P642. The power supply circuit in this panel provides power to several systems including the leak detection system (LDS) and the RWCU system (*CE*) and is daisy-chained from one component to another. The modification involved de-terminating and re-terminating power supply leads on several LDS components, and when the first de-termination was made, power was lost to the RWCU system through the daisy-chain. Typically in power generation control complex (PGCC) panels (*PL*), power supply wires are daisy-chained from one component to another. When one termination is lifted for removal or addition of a wire power is lost to all components downstream of this termination point. Since the safety related components of the RWCU system (*CE*) fail to a safe position upon a loss of power, an isolation resulted. This isolation constitutes an engineered safety feature (ESF) actuation; therefore, this event is reportable pursuant to 10CFR50.73(a)(2)(iv).

INVESTIGATION

Modification Request (MR) 87-0837, field change notice (FCN) 1 required the addition/deletion of various wiring terminations in 1H13*PNLP642 (*PL*) to replace the existing leak detection system drywell unit cooler condensate leak-off line flow transmitter instrumentation loop. During the performance of this work, the work instructions provided in FCN 1 required that one of two wires currently terminated on fuse 1E31A-F78-1 be removed and another wire added. When the terminal screw was removed at this termination point, control power for all downstream instrument loops was lost which caused an RWCU isolation due to power failure. These instrument loops are designed to fail safe on a loss of control power.

The work instructions given in MR 87-0837 FCN 1 provide a complete list of steps necessary to accomplish the wiring changes shown within the MR. However, precautionary steps were not provided to warn of potential isolations associated with the addition/deletion of power supply wiring.

A review of previous reports has identified two similar events. LER 89-016 reported isolations of valves (*ISV*) 1DER*AOV126 and 1DFR*AOV101 during a modification in panel (*PL*) 1H13*P852. An engineering analysis completed prior to the implementation of the modification (to install an emergency operating procedure actuation switch) did not reveal the potential for relay 3B-2-11SCB04 to react before relay 3B-11SCB04 when the AC daisy chain neutral for the

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST 600 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F-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	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		9 0	- 0 3 3	- 0 0	0 3	OF 0 3

TEXT (if more space is required, use additional NRC Form 366A's) (13)

Division II BOP loss of coolant accident (LOCA) initiation circuit was re-established. LER 90-035 report'd a loss of shutdown cooling when a cable (*CBL3*) was disconnected from control room panel (*PL*) 1H13-P692. The system engineer prepared a cable-effects list for a modification. This was caused by the system engineer not recognizing that the removal of the cable would result in the isolation of valve 1E12*MOVFO09.

CORRECTIVE ACTION

At the time of the isolation, the Shift Supervisor ordered the maintenance personnel to re-terminate the power supply lead. With power restored, the Shift Supervisor reset the isolation signal and the RWCU system (*CE*) was returned to operation.

Design Engineering implemented specific precautionary steps directly into the field work instructions of the modification package to prevent additional occurrences. These additional work instructions were then incorporated into the maintenance job plan.

GSU will evaluate the engineering/maintenance planning responsibility and interface to identify corrective actions designed to reduce the potential for similar events. GSU also continues to evaluate the root cause of this event. A supplement to this LER will be provided by February 28, 1991 to provide the results of these evaluations.

SAFETY ASSESSMENT

The RWCU isolation occurred as designed and was restored following retermination of the lead. Therefore, this event did not adversely affect the health and safety of the public.

NOTE: Energy Industry Identification System Codes are identified in the text as (*XX*).