GULF STATES UTILITIES COMPANY
RIVER BEND STATION POST OFFICE BOX 220 ST. FRANCISVILLE, LOUISIANA 70775
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December 13, 1989
RBG- 31941
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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. 89-038, "Unplanned Loss of the Division I 125 VDC Bus" for River Bend Station - Unit 1. This report is being submitted pursuant to 10CFR50.73.

Sincerely,

J. E. Booker

J. E. Booker
Manager-River Bend Oversight
River Bend Nuclear Group

JEB/TFP/RGW/DCH/RLR/ch

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NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO 3150-0104
EXPIRES 8/31/88

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)
Unplanned Loss of the Division I 125 VDC Bus

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)
1 1	1 3	8 9	8 9	0 3 8	0 0	1 2	1 3	8 9		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 9 6	20.402(b)	20.405(c)	X 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)	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	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 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)

At 2236 on 11/13/89 with the plant in Operational Condition 1, at 96 percent power, an unplanned loss of ENB*SWG01A, Division I 125 VDC bus occurred. Power was restored to the bus in three minutes. Appropriate engineered safety feature systems responded to the de-energization and re-energization of the bus.

The investigation that followed this event revealed that personnel failed to adequately verify clearance boundaries and correctly implement the applicable procedure. Corrective actions have been implemented to address this matter. Since the safety systems properly responded to the electrical transient and operations personnel restored the bus in a timely manner, this event had no impact on the health and safety of the public.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

REPORTED CONDITION

At 2236 on 11/13/89 with the plant in Operational Condition 1, at 96 percent power, an unplanned loss of ENB*SWG01A, Division I 125 VDC bus occurred. Power was restored to the bus in three minutes. The loss of the bus actuated the logics for the following isolations and initiations:

* Balance-of-plant (BOP) Division I isolation
* Reactor water cleanup (RWCU) system Division I ioslation
* Reactor core isolation cooling (RCIC) system Division I isolation
* Auto-start of Division I containment monitoring system

The isolations indicated above created low flow conditions which caused auto-starts of the following systems:

* Fuel building filter trains A and B
* Division II stand-by gas treatment (SBGT) and annulus mixing systems

The re-energization of the bus re-energized RCIC instrumentation. The re-energization of the instrumentation provided initiation signals which caused the following:

* RCIC auto-start

The Division I SBGT and annulus mixing system did not start when the bus was de-energized due to a loss of control power. When the bus was re-energized, these Division I systems did not start due to the other train already running.

The loss of ENB*SWG01A, Division I 125 VDC bus (*BU*), occurred during a planned Division I diesel generator (*DG*) outage. Electrical Maintenance was preparing to perform maintenance on battery charger (*BYC*) ENB*CHGR1A which required it to be electrically tagged out of service. The tag out of the charger caused the loss of the bus when both the 480V supply breaker (*BKR*) to the charger, EJS*SWG1A-ACB010 and the Division I battery output breaker ENB*SWG1A-ACB561 were racked out at the same time.

This event resulted in the actuation of engineered safety features (ESFs). Therefore, this report is hereby submitted pursuant to 10CFR50.73(a)(2)(iv).

INVESTIGATION

Preventive Maintenance Work Order (PMWO) P53214 authorized preventive maintenance on ENB*CHGR1A that was scheduled by Electrical Maintenance for the night shift on 11/13/89. The electrical foreman responsible for the work filled out a clearance after reviewing the prints for

personnel safety. The operator attempted to de-energize the charger by implementing the clearance. However, the clearance boundaries were not adequately verified. The operator also failed to correctly implement the operating procedure for removing the charger from service or transferring the switchgear to an alternate charger (SOP-0049). Correctly using SOP-0049 for removing the charger from service or transferring the switchgear to an alternate charger would have alerted the operator to open ACB560 instead of ACB561. Opening ACB560 would have isolated the charger only, whereas ACB561 isolated the batteries from the bus. A meeting was held in the control room to discuss the events and both the operator and the electrical foreman admitted they had looked over the prints and had missed the fact that this clearance would isolate the entire bus instead of just the charger.

A review of previously submitted LERs found that a similar event was reported in LER 89-012 submitted June 30, 1989. In this event, RHR shutdown cooling was lost while the plant was in a shutdown condition. The ESF actuation was due to a loss of power to the Division II isolation logic when an operator opened the breaker supplying the logic system. The operator was hanging a clearance tag for maintenance and the documents he was using failed to identify the isolation of RHR shutdown cooling.

CORRECTIVE ACTION

Corrective action to restore the bus took three minutes. Following restoration of the bus, all isolations and actuations were reset and all systems were returned to a standby lineup. A caution statement has been added to Preventive Maintenance Procedure, (PMP)-1045, "Quarterly Maintenance on Battery Chargers", to state "ensure tagout of the charger does not isolate the bus." Additionally, all Category I charger preventive maintenance tasks have had the breakers added which need to be tagged for maintenance. A near miss investigation was held to discuss this error. The major contributing factors to this event were human error and failure to follow the procedure. All tagging requestors and officials shall receive additional training on this event by February 13, 1990.

SAFETY ASSESSMENT

The actuations of the safety systems occurred as a result of de-energizing and re-energizing the Division I 125 VDC bus. Since the safety systems properly responded to this electrical transient and control room personnel restored the plant in a timely manner, there was no impact on the health and safety of the public.

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