



GULF STATES UTILITIES COMPANY

RIVER BEND STATION POST OFFICE BOX 220 ST. FRANCISVILLE, LOUISIANA 70775
AREA CODE 504 835-8054 345-8851

March 29, 1993
RBG- 38288
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. 93-003 for River Bend Station - Unit 1. This report is submitted pursuant to 10CFR50.73.

Sincerely,

for J. E. Booker
Manager - Safety Assessment
and Quality Verification
River Bend Nuclear Group

LAE/JPS/FRC/DCH/JJG/kvm

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PDR ADOCK 05000458
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Handwritten notes and signatures in the bottom right corner.

cc: U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
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

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

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNRB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, 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)

05000 458

PAGE (3)

1 OF 4

TITLE (4) DEFLATION OF REACTOR AIRLOCK DOOR SEALS COINCIDENT WITH OUTER AIRLOCK DOOR IMPROPERLY SEATED IN ITS FRAME

EVENT DATE (5)			LER NUMBER (6)			REPORT NUMBER (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
02	25	93	93	003	00	03	29	93		05000
OPERATING MODE (9) 1			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10) 100			20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)	
			20.405(a)(1)(i)		50.36(c)(1)		X 50.73(a)(2)(v)		73.71(c)	
			20.405(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)		OTHER	
			20.405(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		Specify in Abstract below and in Text, NRC Form 365A	
			20.405(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(vii)(B)			
			20.405(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 (include Area Code)

(504) 381-4145

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS

SUPPLEMENTAL REPORT EXPECTED (14)

X YES # (yes, complete EXPECTED SUBMISSION DATE)		NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
				05	26	93

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On February 25, 1993, it was discovered that two incidents occurred which apparently caused the upper containment airlock at elevation 171' to malfunction. In one incident the seals on one airlock door were partially deflated while the other airlock door was not completely closed. This constituted a containment breach. Therefore, this report is submitted pursuant to 10CFR50.73(a)(2)(v) as a condition that alone could have prevented the fulfillment of a safety function.

Upon identifying the first incident, STP-057-0401 "Primary Containment Airlock Door Interlock Test" was performed to verify operation of the mechanical interlocks. A maintenance work order was generated to inspect the interlock malfunction following the second incident. A prompt modification request has been generated so that the handwheel lock solenoid will energize directly from the airlock door open/close limit switches during manual operation of the door, with power supplied to the airlock. This will prohibit movement of the door handwheel when the door is outside its frame. The root cause of this incident is still being investigated and will be provided in a revision to this LER. GSU continues to investigate the safety significance of this event.

REQUIRED NUMBER OF DIGITS/CHARACTERS
FOR EACH BLOCK

BLOCK NUMBER	NUMBER OF DIGITS/CHARACTERS	TITLE
1	UP TO 46	FACILITY NAME
2	8 TOTAL 3 IN ADDITION TO 05000	DOCKET NUMBER
3	VARIES	PAGE NUMBER
4	UP TO 76	TITLE
5	6 TOTAL 2 PER BLOCK	EVENT DATE
6	7 TOTAL 2 FOR YEAR 3 FOR SEQUENTIAL NUMBER 2 FOR REVISION NUMBER	LER NUMBER
7	6 TOTAL 2 PER BLOCK	REPORT DATE
8	UP TO 18 -- FACILITY NAME 8 TOTAL -- DOCKET NUMBER 3 IN ADDITION TO 05000	OTHER FACILITIES INVOLVED
9	1	OPERATING MODE
10	3	POWER LEVEL
11	1 CHECK BOX THAT APPLIES	REQUIREMENTS OF 10 CFR
12	UP TO 50 FOR NAME 14 FOR TELEPHONE	LICENSEE CONTACT
13	CAUSE VARIES 2 FOR SYSTEM 4 FOR COMPONENT 4 FOR MANUFACTURER NPRDS VARIES	EACH COMPONENT FAILURE
14	1 CHECK BOX THAT APPLIES	SUPPLEMENTAL REPORT EXPECTED
15	6 TOTAL 2 PER BLOCK	EXPECTED SUBMISSION DATE

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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FACILITY NAME (1)		DOCKET NUMBER (2)		LER NUMBER (6)			PAGE (3)
RIVER BEND STATION		05000 458		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	OF 2 4
				93	003	00	

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

REPORTED CONDITION

On February 25, 1993, with the unit in Operational Condition 1 (Power Operation), it was discovered that two incidents occurred which apparently caused the upper containment airlock (*AL*) (1JRB*DRA1) at elevation 171' to malfunction. In one incident the seals on one airlock door were partially deflated while the other airlock door was not completely closed. This constituted a containment (*NG*) breach. Therefore, this report is submitted pursuant to 10CFR50.73(a)(2)(v) as a condition that alone could have prevented the fulfillment of a safety function.

INVESTIGATION

The first incident occurred at 1350 on February 25, 1993. An individual entered the containment airlock from the outer door, auxiliary building side. He attempted to manually close the outer airlock door from inside the airlock. He rotated the handwheel towards the "close" position, unaware that the airlock door was not seated completely in its frame. Movement of the handwheel into the "seal" position caused the seals to inflate while the airlock door was still outside its frame. Additionally, the door's latch pins were extended. However, due to the door's position, the latch pins were not in their keepers. The individual then proceeded to attempt to open the reactor door. The reactor door handwheel was rotated towards the "open" position which initiated depressurization of the seals.

Having the seals deflated on the reactor door, while the outer door was slightly ajar, caused a momentary breach of the containment. The individual inside the airlock promptly closed and secured the reactor door upon being informed by individuals on the auxiliary building side of the airlock that the outer door was not sealed properly. He opened and then properly closed and secured the outer door. STP-057-0401 "Primary Containment Airlock Door interlock Test" was performed immediately after this incident to verify operation of the mechanical interlocks.

The second incident occurred approximately at 2100 on February 25, 1993. As an individual was entering the airlock from the auxiliary building, the handwheel on the reactor door was partially rotated while the outer door was not completely closed and sealed. However, the seals on the reactor door were not deflated, thus a containment breach did not occur. Maintenance Work Order No. R174728 was generated by the Shift Supervisor to inspect the interlock mechanism following the second incident.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
RIVER BEND STATION	05000 458	93	003	00	3 OF 4

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

As identified in the vendor's operation and maintenance manual (3219.711-056-001), the two doors, one at each end of the airlock, are designed to be mechanically interlocked so that one door cannot be opened unless the other is completely closed and sealed. When one door is open, the mechanical interlock mechanism is designed to lock the opposite airlock door so that the containment cannot be breached during access through the airlock.

When operating the doors manually, as identified in the vendor manual, special care must be taken by the individual when the door is in the open position. Operating instructions are posted on each airlock door identifying the proper operation of the doors in the manual and automatic mode.

In addition to the mechanical interlock, the airlock is designed with a solenoid activated handwheel locking mechanism. The purpose of the handwheel locking mechanism is twofold. Under complete automatic operation, with power supplied to the airlock, the handle lock solenoid mechanism functions as part of the differential pressure monitoring system. If a differential pressure of more than 0.5 psi exists across the airlock door, the handwheel locking mechanism is energized and for personnel safety prevents the continuation of the opening sequence until the pressure is equalized.

In addition to being used as a part of the differential pressure monitoring system, under automatic conditions, the handwheel locking mechanism energizes when the door is opened. This prevents rotation of the handwheel while the door is in the open position. The handle locking mechanism that prevents the handwheel from rotating when the door leaves its frame, will not function when the door is operated in the manual mode (power off). Movement of the handwheel to the "seal" position de-activates the mechanical interlocks. If this occurs with the door not fully closed, the seals will inflate, potentially damaging the seals and causing personal injury.

The handwheel locking mechanism, which would have prevented the handwheel from rotating when the door was in the open position, was de-energized prior to the two incidents described above.

ROOT CAUSE

The root cause of this incident is still being investigated and will be provided in a revision to this LER.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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FACILITY NAME (1)		DOCKET NUMBER (2)		LER NUMBER (6)			PAGE (3)	
RIVER BEND STATION		05000 458		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	OF 4 4	
				93	003	00		

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

CORRECTIVE ACTION

Upon identifying the first incident, STP-057-0401 "Primary Containment Airlock Door Interlock Test" was performed to verify operation of the mechanical interlocks. Maintenance Work Order No. R174728 was generated by the Shift Supervisor to inspect the interlock malfunction following the second incident. As a compensatory measure, GSU took actions consistent with the Action Statement of TS 3.6.1.4, "Primary Containment Airlocks."

Prompt modification request (PMR) 93-009 has been generated so that the handwheel lock solenoid will energize directly from the airlock door open/close limit switches during manual operation of the door, with power supplied to the airlock. This will prohibit movement of the door handwheel when the door is outside its frame. This change will ensure that the mechanical interlocks are maintained even if an attempt is made to misoperate the equipment. In addition, prohibiting movement of the handwheel will ensure that the seals are not inflated when the door is open, which could result in personal injury and/or damage to the seals.

SAFETY ASSESSMENT

Technical Specification 3.6.1.1, "Primary Containment Integrity - Operating" provides one hour to restore containment integrity. This event constituted a momentary breach due to seal deflation and thus was well within the one hour time limit. GSU continues to investigate the safety significance of this event.

Note: Energy industry identification codes are indicated in the text as (*XX*).