

GULF STATES UTILITIES COMPANY

RIVER BEND STATION POST OFFICE BOX 520 ST. FRANCISVILLE, LOUISIANA 70775
AREA CODE 504 636 6094 345 6851



September 14, 1992
RBG- 37491
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. 92-014 for River Bend Station - Unit 1. This report is submitted pursuant to 10CFR50.73.

Sincerely,

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

PDC *SC44*
LAE/PDC *SC44* DCH/GFH/kvm

9209180265 920914
PDR ADOCK 05000458
S PDR

JE221

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 Parkway
Atlanta, GA 30339-3064

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

Louisiana Department of Environmental Quality
Nuclear Energy 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: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MMRB 7718), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20545-0001, 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) INADEQUATE TESTING OF EMERGENCY BUS UNDERVOLTAGE LOGIC CIRCUITRY AS DESCRIBED IN NRC INFORMATION NOTICE 92-40

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
08	14	92	92	014	00	09	14	92	FACILITY NAME	DOCKET NUMBER
										05000
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more) (11)
4	<input type="checkbox"/> 20.402(b) <input type="checkbox"/> 20.405(c) <input type="checkbox"/> 50.73(a)(2)(iv) <input type="checkbox"/> 73.71(b)
POWER LEVEL (10)	<input type="checkbox"/> 20.405(a)(1)(i) <input type="checkbox"/> 50.36(c)(1) <input type="checkbox"/> 50.73(a)(2)(v) <input type="checkbox"/> 73.71(c)
0	<input type="checkbox"/> 20.405(a)(1)(ii) <input type="checkbox"/> 50.36(c)(2) <input type="checkbox"/> 50.73(a)(2)(vi) <input type="checkbox"/> OTHER
	<input type="checkbox"/> 20.405(a)(1)(iii) <input checked="" type="checkbox"/> 50.73(a)(2)(i) <input type="checkbox"/> 50.73(a)(2)(vii)(A) <input type="checkbox"/> (Specify in Abstract below and in Text, NRC Form 366A)
	<input type="checkbox"/> 20.405(a)(1)(iv) <input type="checkbox"/> 50.73(a)(2)(ii) <input type="checkbox"/> 50.73(a)(2)(vii)(B)
	<input type="checkbox"/> 20.405(a)(1)(v) <input type="checkbox"/> 50.73(a)(2)(iii) <input type="checkbox"/> 50.73(a)(2)(k)

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)

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

SUPPLEMENTAL REPORT EXPECTED (14)

YES	NO	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 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On August 14, 1992 during a review of NRC Information Notice #92-40 for applicability to River Bend Station, it was determined that a reportable condition exists concerning Divisions I and II 4.16 KV standby busses not receiving surveillance inspections to the requirements of Technical Specifications (TS) 4.8.1.1.2.f.4.a.1, 4.8.1.1.2.f.6.a.1, 4.3.3.2 and Table 4.3.3.1-1 D.1.a./b. Therefore, this report is submitted pursuant to 10CFR50.73 (a)(2)(i)(b).

Division I and II 4.16 KV standby switchgear were declared inoperable in accordance with TS 4.0.3, a "one-time" change notice was written against Surveillance Test Procedure (STP)-302-1601 to verify that the alternate supply breaker to the Division II standby bus would trip in response to an undervoltage signal by opening switches to drop out the undervoltage relays. STP 309-0601 (Division I) and STP 309-0602 (Division II) were revised to initiate the loss of power (LOP) during the LOP/LOCA and LOP only portions of the ECCS tests by dropping out the bus undervoltage relays directly. The tests were performed satisfactorily and Division I and II switchgear were subsequently declared operable.

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**

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 (INRR 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)	DOCKET NUMBER (2)	LER NUMBER (3)			PAGE (4)
RIVER BEND STATION	05000 458	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	OF 2 4
		92	014	000	

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

REPORTED CONDITION

NRC Information Notice #92-40 describes inadequate testing of emergency bus undervoltage logic circuitry at several plants, originally discovered during an electrical distribution system functional inspection (EDSFI) at another licensee's plant. During a review for applicability at River Bend Station, it was discovered that testing inadequacies described in this Information Notice also exist at River Bend Station.

Technical Specifications (TS) 4.8.1.1.2.f.4.a.1 and 4.8.1.1.2.f.6.a.1, require simulating a loss of offsite power and verifying deenergization of the emergency busses and load shedding from the emergency busses. Table 4.3.3.1-1, Section D.1.a./b., and TS 4.3.3.2 require ECCS logic system functional testing (LSFT) and simulated automatic operation of all channels every 18 months. ECCS testing methods used since the first refueling outage (RF-1) initiated a loss of offsite power by manually tripping the normal supply breaker to the standby switchgear. This did not verify that a degraded or sustained undervoltage condition will cause the normal supply breaker to automatically trip to separate the bus from the degraded offsite power supply. Therefore, this report is submitted pursuant to 10CFR50.73(a)(2)(i)(b).

INVESTIGATION

Investigation of the LSFT overlaps between the Division I and II ECCS tests and the relay calibration and functional tests, resulted in the determination that sufficient overlap does not exist and has not existed in the tests performed since RF-1. The ECCS STPs initiated the loss of power (LOP) by tripping the normal supply breaker to the divisional bus. The relay calibrations and functional tests initiated the undervoltage relaying scheme by manually actuating the undervoltage relays. The breakers associated with the undervoltage relays were prevented from tripping by lifting the appropriate leads. The test then monitored the logic response of all the relays in the logic string down to the last relay (94A). No overlap was provided in any STP to ensure that the normal or alternate supply breakers would trip when the 94A relay was actuated.

Based on a review of TS requirements included in TS 4.8.1.1.2.f.4.a.1, 4.8.1.1.2.f.6.a.1, 4.3.3.2 and Table 4.3.3.1-1, Section D.1.a./b., it is apparent that the surveillance requirements were not fully met. Historical research revealed that (1985) startup preoperational test PT-210 properly tested this logic by actually initiating the LOP by tripping the 230 KV offsite power lines at the Fancy Point switchyard. Additionally, the first performance of STP-309-0601 and 0602 assured adequate LSFT.

ESTIMATED BURDEN PER RESPONSE TO COM-
INFORMATION COLLECTION REQUEST: 500 Y
COMMENTS REGARDING BURDEN ESTIMATE TO
AND RECORDS MANAGEMENT BRANCH (MNRB)
REGULATORY COMMISSION, WASHINGTON, DC 20543-0001
THE PAPERWORK REDUCTION PROJECT (3150-0104)
MANAGEMENT AND BUDGET, WASHINGTON, DC 20543

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

overlap by dropping out the bus undervoltage relays. Before their next scheduled performance in RF-1, these STPs were changed to allow the initiation of the LOP portion of the test by manually tripping the normal supply breakers. The performance of the ECCS test in September, 1985 was the last time that the correct test methodology was used. Since these STPs are scheduled at 18 month intervals, the requirements are considered to have been satisfied until the revised STPs were used in RF-1.

In the Division III ECCS test, a loss of offsite power was initiated in the LOP/LOCA portion of the test by tripping breaker 1NNS-ACB25 on the normal 4.16 KV bus supplying power to the Division III standby bus and verifying that the bus undervoltage relaying scheme would cause the safety related supply breaker (1E22-ACB04) on the Division III bus to automatically trip. However, in the LOP ONLY portion of the ECCS test, the 1E22-ACB04 breaker was manually tripped. Further investigation and STP review showed that adequate overlap does exist to ensure that the bus undervoltage relaying was adequately tested and therefore, the TS surveillance requirements were satisfied for Division III.

ROOT CAUSE

The root cause of the failure to fully comply with the TS surveillance requirements listed above was personnel error. This personnel error occurred in 1985 when STP-309-0601 and 0602 were revised improperly. A contributing factor was that the errors went undetected and uncorrected during subsequent procedure reviews. A complete evaluation was performed during the applicability review of NRC Information Notice #92-40 and determined that no other STPs were affected.

A similar event was reported in LER 91-020. LER 91-020 reported an event in which hydrogen igniters were declared inoperable due to discrepancies between the TS and an STF. In LER 92-014, there were no discrepancies of this type; however, these events do have limited similarity due to past deficiencies in the procedure review and revision process.

CORRECTIVE ACTION

The following corrective actions were initiated:

1. Upon discovery of the condition, both Division I and II 4.16 KV standby busses were declared inoperable and the applicable TS Action statement was entered. A one-time change (CN #92-0953) to STP-302-1601 was made and immediately performed to properly test the alternate

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TEXT CONTINUATION

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FACILITY NAME (1)	DCI KEY NUMBER (2)	LER NUMBER (6)			PAGE (3)
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supply breaker to the Division II 4.16 KV standby bus, (ENS*SWG1B) by manually opening switches to deenergize the associated undervoltage relays and by verifying that the breaker tripped in response to the undervoltage signal. This test ensured minimum operability requirements were met, with satisfactory results.

2. Change Notice (CN) 92-0988 to STP-309-0601 and CN 92-0990 to STP-309-0602 were written to revise the LOP initiation during both the LOP/LOCA and LOP ONLY portions of the ECCS test. Rather than initiate the LOP by manually tripping the normal supply breakers, the LOP is now initiated by manually opening test switches to deenergize the undervoltage relays and verify that the normal and alternate supply breakers will trip. This test has been performed satisfactorily for Division I and II 4.16 KV standby switchgears.
3. STP-309-0603, the Division III ECCS test procedure, will be revised prior to its next performance to change the LOP initiation test methodology during both the LOP/LOCA and LOP ONLY portions of the test, to require a manual trip of the 1NNS-ACB025 breaker, and verify the normal supply breaker, 1E22-ACB04 will automatically trip.

Follow-up corrective actions initiated after the root cause investigation were as follows:

This LER will be required reading for Maintenance, Operations, and System Engineering personnel who write/revise STPs. This LER will be annotated in the reference sections of STP-309-0601, 0602, 0603 to assure the correct test methodology is not inadvertently deleted in the future.

As identified in the Corrective Action section of LER 91-020, GSU has taken extensive actions to improve the procedure review and revision process.

SAFETY ASSESSMENT

The TS surveillance requirements were not completely met for the relay logic portion of the Division I and II ECCS testing for RF-1, RF-2, and RF-3. However, the relay logic was fully tested in RF-4 and the test was successful. This verified that the logic was functioning properly.