GULF STATES UTILITIES COMPANY

RIVER BEND STATION POST OFFICE BOX 220 ST. FRANCISVILLE, LOUISIANA 70775

AREA CODE 504 635-6094 346-8651

November 26, 1990
RBG- 34065
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. 90-034 for River Bend Station - Unit 1. This report is being submitted pursuant to 10CFR50.73.

Sincerely,

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

LAE/PDG/DEJ/DCH/RCL/pg

cc: U.S. Nuclear Regulatory Commission
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Arlington, TX 76011

NRC Resident Inspector
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NRC FORM 366 (6-89)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92

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)	DOCKET NUMBER (2)	PAGE (3)
RIVER BEND STATION	0 5 0 0 0 4 5 8	1 OF 0 3

TITLE (4): Reactor Protection System Actuation due to Shorting in the Connectors During Under Vessel Decontamination Activities

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 0	2 7	9 0	9 0	–	0 3 4	– 0 0	1 1	2 6	9 0		0 5 0 0 0
											0 5 0 0 0

OPERATING MODE (9)	5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 0	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
J. A. England, Director-Nuclear Licensing	AREA CODE 5 0 4 3 8 1 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 approximately 1138 on 10/27/90 with the unit in Operational Condition 5 (Refueling), the reactor protection system (RPS) actuated on high neutron flux signals from intermediate range monitors (IRMs) F and G. No rod movement resulted from this RPS actuation. The root cause was shorting in two IRM detector connectors due to the introduction of water into the connectors. This event is reportable pursuant to 10CFR50.73(a)(2)(iv) as an engineered safety (ESF) actuation.

The maintenance procedure governing control rod drive removal will be revised. A precaution will be added to alert personnel to the need for ca when performing decontamination while in proximity to nuclear instruments. In addition, prerequisites will be added to verify the integrity of the cable guards which protect the IRM connectors, prior to CRD removal work.

All installed control rods were inserted prior to this event. Note that some control rods had been removed for replacement. Additionally, no rod motion occurred as a result of the unplanned RPS actuation and the RPS system responded as designed. Therefore, this event did not adversely affect the health and safety of the public.

REPORTED CONDITION

At approximately 1138 on 10/27/90, with the unit in Operational Condition 5 (Refueling), the reactor protection system (RPS) (*JE*) actuated on high neutron flux signals from intermediate range monitors (IRMs) (*IG*) F and G. All installed control rods were previously inserted and no additional rod motion occurred due to the RPS (*JE*) actuation. The root cause of this actuation was shorting in two IRM connectors due to the introduction of water into the connectors. This event is reportable pursuant to 10CFR50.73 (a)(2)(iv) as an engineered safety feature (ESF) actuation.

INVESTIGATION

On October 27, 1990, contract personnel had completed torquing of control rod drive mechanism flange bolts and were in the process of decontaminating the undervessel equipment handling platform using a water spray wand. Near the end of the decontamination operation, the RPS actuation occurred.

Following the RPS actuation, the operators followed plant procedures and reset the scram at 1142. Prompt maintenance work orders (MWOs) 056642 and 056648 were written to trouble shoot and repair the IRM connectors. Upon disassembly, maintenance personnel discovered water present in both connectors. The connectors were removed, dried, cleaned, and then replaced in their respective IRMs. The individual IRMs were tested satisfactorily per their surveillance test procedures and were returned to service.

CORRECTIVE ACTION

Following the RPS actuation, the shift supervisor suspended undervessel activities and initiated prompt MWOs to investigate IRM F and IRM G as stated in the investigation section. In addition, the plant manager reviewed the circumstances of the event with the personnel involved.

The maintenance procedure governing control rod drive removal will be revised. A precaution will be added to alert personnel to the need for care when performing decontamination while in proximity to nuclear instruments. In addition, prerequisites will be added to verify the integrity of the cable guards which protect the IRM connectors, prior to CRD removal work.

SAFETY ASSESSMENT

All installed control rods were inserted prior to this event. Note that some control rods had been removed for replacement. Additionally, no rod motion occurred as a result of the unplanned RPS

(*JE*) actuation, and the system responded as designed. 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*).