



Entergy Operations, Inc.
River Bend Station
5485 U.S. Highway 61
P. O. Box 220
St. Francisville, LA 70775
Tel 225 336 6225
Fax 225 635 5068

Rick J. King
Director
Nuclear Safety Assurance

January 16, 2001

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Subject: River Bend Station
Docket No. 50-458
License No. NPF-47
Licensee Event Report 50-458 / 01-001-00

File Nos. G9.5, G9.25.1.3

RBG-45610
RBF1-01-0003

Ladies and Gentlemen:

In accordance with 10CFR50.73, enclosed is the subject Licensee Event Report.
There are no commitments in this document.

Sincerely,

A handwritten signature in cursive script that reads "J. W. Leavins for".

RJK/dhw
enclosure

IE22

Licensee Event Report 50-458 / 01-001-00
January 16, 2001
RBG-45610
RBF1-01-0003
Page 2 of 2

cc: U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011

NRC Sr. Resident Inspector
P. O. Box 1050
St. Francisville, LA 70775

INPO Records Center
E-Mail

Mr. Jim Calloway
Public Utility Commission of Texas
1701 N. Congress Ave.
Austin, TX 78711-3326

Mr. Prosanta Chowdhury
Program Manager – Surveillance Division
Louisiana DEQ
Office of Radiological Emergency Planning and Response
P. O. Box 82215
Baton Rouge, LA 70884-2215

LICENSEE EVENT REPORT (LER)

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

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), 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. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FACILITY NAME (1)

River Bend Station

DOCKET NUMBER (2)

05000-458

PAGE (3)

1 of 3

TITLE (4)

Automatic Actuation of Primary Containment Isolation Valve in Suppression Pool Cooling System Due to Test Switch Failure

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 NAME	DOCKET NUMBER	
12	17	2000	2001	01	00	01	16	2001	FACILITY NAME	DOCKET NUMBER	
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)								
1			20.2201(b)				20.2203(a)(2)(v)	50.73(a)(2)(i)		50.73(a)(2)(viii)	
POWER LEVEL (10)			20.2203(a)(1)			20.2203(a)(3)(i)			50.73(a)(2)(ii)		50.73(a)(2)(x)
100%			20.2203(a)(2)(i)			20.2203(a)(3)(ii)			50.73(a)(2)(iii)		73.71
			20.2203(a)(2)(ii)			20.2203(a)(4)			x 50.73(a)(2)(iv)		OTHER
			20.2203(a)(2)(iii)			50.36(c)(1)			50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A
			20.2203(a)(2)(iv)			50.36(c)(2)			50.73(a)(2)(vii)		

LICENSEE CONTACT FOR THIS LER (12)

NAME

J.W. Leavines, Manager - Licensing

TELEPHONE NUMBER (Include Area Code)

225-381-4642

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
B	JM	HS	GE	Y					

SUPPLEMENTAL REPORT EXPECTED (14)

YES

(If yes, complete EXPECTED SUBMISSION DATE).

NO

EXPECTED

MONTH

DAY

YEAR

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

At approximately 0823 hours on December 17, 2000, with the plant at 100 percent rated power, an unplanned automatic closure of a primary containment isolation valve in the suppression pool cooling system occurred during surveillance testing. This event is being reported in accordance with 10CFR50.73(a)(2)(iv) as an event that resulted in the automatic actuation of an engineered safety feature.

This event occurred during scheduled surveillance testing of the residual heat removal pump room high temperature isolation function. Test switches are used during the procedure to bypass the isolation function, allowing initiation of a high temperature trip signal without actually causing closure of the isolation valves. In this case, a failure of a test switch caused the isolation circuitry to remain active such that the trip signal initiated during the procedure was not bypassed. The isolation valve closed as designed in response to the simulated high temperature trip signal.

The SPC system does not perform a safety related function. The isolation valve is designed to protect the integrity of primary containment during a postulated line break, and it functioned as designed. The failure mode of the switch was such that it could not cause an isolation signal to the isolation valve to be bypassed. The safety function of the isolation circuitry and valve was thus unaffected by the switch failure. This event was of no significance with respect to the health and safety of the public.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET (2) NUMBER (2)	LER NUMBER (6)			PAGE (3)
River Bend Station	05000-458	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 of 3
		01	-- 01	-- 00	

REPORTED CONDITION

At approximately 0823 hours on December 17, 2000, with the plant at 100 percent rated power, an unplanned automatic closure of a primary containment isolation valve (**ISV**) in the suppression pool cooling (SPC) system occurred during surveillance testing. This event is being reported in accordance with 10CFR50.73(a)(2)(iv) as an event that resulted in the automatic actuation of an engineered safety feature.

INVESTIGATION

As a part of the surveillance procedure, three keylock switches (**HS**) are turned to the "bypass" position before any residual heat removal pump room high temperature trip signals are simulated. The purpose of repositioning the switches is to bypass any trip signals generated during the test, thus allowing the affected systems to continue to operate. Both divisions of the safety related trip logic circuitry contain three identical switches.

After the three switches were turned to "bypass", the test was continued with the lifting of the thermocouple input leads to the associated trip unit. When the leads were lifted, the trip unit actuated as expected. Additionally, the containment isolation valve in the SPC system closed, which was not the expected response.

In the examination of the keylock switch from inside the control panel, it was found that a screw had fallen out of the contact block assembly. The switch is model number CR2940, and is manufactured by General Electric. There are two screws which hold the contact block assembly to the operator assembly. The loss of the screw caused the contact block to malfunction, allowing the trip signal to the isolation valve to remain active.

The screw was replaced between the contact block assembly and operator assembly, and the switch was retested satisfactorily. The other two switches in that division were examined to assure that their screws were properly installed, as were the three test switches in the opposite division of the isolation trip circuitry. No other loose screws were found.

CAUSAL ANALYSIS AND CORRECTIVE ACTIONS

Because all six of the test switches in the isolation logic panels are subjected to virtually identical service, it is likely that the contact block mounting screw that fell out was insufficiently tightened when the switch was originally assembled before plant operation. No records of maintenance activity which would have necessitated disassembly of the switch were found.

The missing screw was replaced, and the switch was returned to service. All the other test switches in the divisional panels were inspected for a similar condition, and no discrepancies were found. A plan for inspecting similar switches on a sampling basis is being implemented.

PREVIOUS OCCURRENCE EVALUATION

A search of maintenance history found no records of any work which would have necessitated disassembly of the failed switch. The switch has likely been in service undisturbed since the panel was originally installed during plant construction. The same model switch is installed in numerous locations in the plant, and only one similar failure was found in a different location. Investigation of that failure in 1998 determined that the switch had been damaged by being inadvertently bumped, causing a screw to be stripped.

A review of external operating experience found no occurrences of the same failure mode seen in this event.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET (2) NUMBER (2)	LER NUMBER (6)			PAGE (3)
River Bend Station	05000-458	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 of 3
		01	-- 01	-- 00	

SAFETY SIGNIFICANCE

Other than maintaining the primary containment pressure boundary, the SPC system does not perform a safety related function. The isolation valve is designed to protect the integrity of primary containment during a postulated line break, and it functioned as designed. The failure mode of the switch was such that it could not cause an isolation signal to the isolation valve to be bypassed. The safety function of the isolation circuitry and valve was thus unaffected by the switch failure. This event was of no significance with respect to the health and safety of the public.

(Note: Energy industry component identification codes are annotated in the text as (**XXX**).)