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Rick J. King
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January 10, 2000

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

Subject: River Bend Station - Unit 1
Docket No. 50-458
License No. NPF-47
Licensee Event Report 50-458/99-015-00

File Nos. G9.5, G9.25.1.3

RBG-45211
RBF1-00-0001

Ladies and Gentlemen:

In accordance with 10 CFR 50.73, enclosed is the subject Licensee Event Report. No commitments are identified in this report. The event continues to be assessed under the River Bend corrective action program and a supplemental report will be provided.

Sincerely,

J. W. Leavines for R. J. King

RJK/DLM
Attachment
Enclosure

IE22

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 & Response
P. O. Box 82215
Baton Rouge, LA 70884-2215

Attachment 1

Commitment Identification Form
Subject: LER 99-015-00

RBG-45211
RBF1-00-0001
Date: January 10, 2000

COMMITMENT	ONE TIME ACTION	CONTINUING COMPLIANCE
NONE		

NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION
(6-1998)

LICENSEE EVENT REPORT (LER)

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

APPROVED BY OMB NO. 3150-0104 EXPIRES 06/30/2001

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)	DOCKET NUMBER (2)	PAGE (3)
River Bend Station	05000458	1 of 4

TITLE (4)

Residual Heat Removal 'C' and Reactor Core Isolation Cooling Operability affected by an unsealed wall penetration between their rooms in the Auxiliary Building

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
										05000
12	09	1999	1999	--015--	00	01	10	2000	FACILITY NAME	DOCKET NUMBER
										05000

OPERATING	1
POWER LEVEL (10)	100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)

	20.2201(b)		20.2203(a)(2)(v)	X	50.73(a)(2)(i)(B)		50.73(a)(2)(viii)
	20.2203(a)(1)		20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(x)
	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)		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)	X	50.73(a)(2)(vii)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
D. N. Lorfing, Supervisor – Licensing	225-381-4157

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

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED	MONTH	DAY	YEAR
X	YES (If yes, complete EXPECTED SUBMISSION DATE).	NO		02	29	2000

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

On December 10, 1999, with the plant in Mode 1 at full power, an unsealed penetration in the wall between the Residual Heat Removal (RHR) (*BO*) 'C' and Reactor Core Isolation Cooling (RCIC) (*BN*) rooms in the Auxiliary Building (AB) was determined to impact operability. The condition resulted in the declaration of RHR 'C' and RCIC as inoperable. The open penetration has existed since initial plant startup in 1985. The condition is reportable according to 10 CFR 50.73(a)(2)(vii) due to a single fault causing a train in multiple systems to become inoperable and according to 10 CFR 50.73 (a)(2)(i)(B) as operation prohibited by Technical Specifications.

The subject penetration was sealed. RHR 'C' and RCIC were declared operable after completion of this work. The root cause is being determined through the River Bend corrective action program. A supplemental report will provide the results of this evaluation.

RCIC and one train of RHR were potentially impacted by the reported unsealed penetration. Other emergency core cooling systems, including the other two trains of RHR, were not affected. Except for the moderate energy line cracks (MELC) and high energy line breaks (HELB) scenarios, the ability of RHR 'C' and RCIC to respond to other postulated plant events was not impaired. The safety significance of the open penetration continues to be reviewed by the engineering staff.

REPORTED CONDITION

On December 10, 1999, with the plant in Mode 1 at full power, an unsealed penetration in the wall between the Residual Heat Removal (RHR) (*BO*) 'C' and Reactor Core Isolation Cooling (RCIC) (*BN*) rooms in the Auxiliary Building (AB) was determined to impact operability. Based on a review of the design bases for the wall at that location, a conclusion was made that the penetration required a watertight seal to protect equipment from design basis internal flooding (postulated from moderate energy line cracks (MELC) and high energy line breaks (HELB)) in the other room. The condition resulted in the declaration of RHR 'C' and RCIC as inoperable. The open penetration has existed since initial plant startup in 1985. The condition is reportable according to 10 CFR 50.73(a)(2)(vii) due to a single fault causing a train in multiple systems to become inoperable and according to 10 CFR 50.73 (a)(2)(i)(B) as operation prohibited by Technical Specifications.

BACKGROUND

The RHR 'C' and the RCIC rooms are located adjacent to one another on the 70' elevation of the AB. The subject penetration is a 4" diameter hole through the 2' thick AB wall approximately 5 feet above the floor. Two instrumentation lines are routed through the unsealed penetration.

The RCIC system is designed to operate either automatically or manually following reactor pressure vessel (RPV) isolation accompanied by a loss of coolant from the feedwater system to provide adequate core cooling and control of RPV water level. Under these conditions, the High Pressure Core Spray (HPCS) (*BG*) and RCIC systems perform similar functions.

RHR 'C' is one train of the Low Pressure Coolant Injection (LPCI) (*BO*) emergency core cooling system (ECCS). LPCI is one operating mode of RHR. LPCI is designed to provide coolant inventory makeup to the reactor core only when the reactor vessel pressure is low and can therefore, supply makeup for large breaks as well. Following a small break and ADS initiation, LPCI provides coolant inventory makeup.

INVESTIGATION

On December 9, 1999, while reviewing plant records for a Quality Assurance (QA) Audit, an auditor questioned why a maintenance action item (MAI) for the subject penetration had been open since May 1998. The QA auditor inquired about the penetration seal with respect to the existence of a watertight door directly above it. The auditor questioned why the penetration required no seal while the door had a specified seal type.

The open penetration has existed since 1985 was initially discovered in May 1998. A review found that a low priority was placed on the MAI because the wall was (correctly) established as a non-fire rated wall and an applicable design basis summary drawing listed the penetration seal type as "NONE", i.e., no seal required. Consequently, no limiting condition for operation (LCO) was generated and no condition report (CR) was written at the time of initiation of the MAI.

Twice during 1999, system engineering personnel discussed the subject penetration with design engineers to verify that the design configuration of the penetration required no seal. Based on the design documentation evidence on the summary drawing, no further action appeared necessary. The impact on operability was not recognized until December 1999.

On December 10, 1999, design engineering personnel determined that the subject penetration should be sealed and initiated a CR. The Shift Superintendent declared both RHR 'C' and RCIC inoperable based on the effects of MELC/HELB flooding considerations. Reviews for other plant hazards (fire, radiological hazards, temperature, humidity) identified no other immediate operability issues associated with the missing seal.

ROOT CAUSE

The root cause is being determined through the River Bend corrective action program. A supplemental report will provide the results of this evaluation.

CORRECTIVE ACTIONS

The subject penetration was sealed. On December 11, 1999, RHR 'C' and RCIC were declared operable after completion of this work.

Other corrective actions will be determined as necessary by the River Bend corrective action process.

SAFETY EVALUATION

RCIC and one train of RHR were potentially impacted by the reported unsealed penetration. Other emergency core cooling systems, including the other two trains of RHR, were not affected. Except for the MELC and HELB scenarios, the ability of RHR 'C' and RCIC to respond to other postulated plant events was not impaired. The safety significance of the open penetration continues to be reviewed by the engineering staff.

PREVIOUS OCCURRENCE EVALUATION

A review of previous licensee event reports found no similar events.

The Energy Industry Identification System (EIIS) component/system number is indicated by a parenthesis after the affected component/system. (Example: (*XX*))