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Rick J. King
Director
Nuclear Safety Assurance

June 5, 2003

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 / 03-002-01

File Nos. G9.5, G9.25.1.3

RBG-46130
RBF1-03-0105

Ladies and Gentlemen:

In accordance with 10CFR50.73, enclosed is the subject Licensee Event Report. This is a supplement to LER 50-458 / 03-002-00 submitted on May 6, 2003. Revisions are indicated by change bars in the right margin. Commitments are summarized on the Commitment Identification Form.

Sincerely,

A handwritten signature in black ink that reads "Rick J. King".

RJK/dhw
enclosure

Handwritten initials "Jed" in the bottom right corner of the page.

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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
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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

Commitment Identification Form

COMMITMENTS	ONE-TIME ACTION*	CONTINUING COMPLIANCE*
Maintenance instructions for the DADs will be revised with information concerning the unnecessary set screw hole in the spur gears.	X	

*Check one only

Estimated burden per response to comply with this mandatory information collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-8 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bj1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose 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.

LICENSEE EVENT REPORT (LER)

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

FACILITY NAME (1) River Bend Station	DOCKET NUMBER (2) 050- 458	PAGE (3) 1 OF 3
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TITLE (4)
Secondary Containment Door Failure Due to Malfunction of Door Assist Device

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
03	07	2003	2003	002	01	06	05	2003		05000
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9) 1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) (11)									
POWER LEVEL (10) 87%	20.2201(b)	20.2203(a)(3)(ii)	50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)						
	20.2201(d)	20.2203(a)(4)	50.73(a)(2)(iii)	50.73(a)(2)(x)						
	20.2203(a)(1)	50.36(c)(1)(i)(A)	50.73(a)(2)(iv)(A)	73.71(a)(4)						
	20.2203(a)(2)(i)	50.36(c)(1)(ii)(A)	50.73(a)(2)(v)(A)	73.71(a)(5)						
	20.2203(a)(2)(ii)	50.36(c)(2)	50.73(a)(2)(v)(B)	OTHER Specify in Abstract below or in NRC Form 366A						
	20.2203(a)(2)(iii)	50.46(a)(3)(ii)	X 50.73(a)(2)(v)(C)							
	20.2203(a)(2)(iv)	50.73(a)(2)(i)(A)	50.73(a)(2)(v)(D)							
	20.2203(a)(2)(v)	50.73(a)(2)(i)(B)	50.73(a)(2)(vii)							
	20.2203(a)(2)(vi)	50.73(a)(2)(i)(C)	50.73(a)(2)(viii)(A)							
20.2203(a)(3)(i)	50.73(a)(2)(ii)(A)	50.73(a)(2)(viii)(B)								

LICENSEE CONTACT FOR THIS LER (12)

NAME J.W. Leavines, Manager - Licensing	TELEPHONE NUMBER (Include Area Code) 225-381-4642
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX
B	NF	DR	Overly Door Co.	YES					

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 15 single-spaced typewritten lines) (16)

On March 7, 2003, at approximately 2:31 p.m. CST, the door assist device (DAD) on a secondary containment door in the auxiliary building failed, blocking the door open for a period of 78 minutes. At the time, the reactor was operating at approximately 87 percent power in end-of-cycle coastdown. This event is being reported in accordance with 10CFR50.73(a)(2)(v)(c) as a condition that could have prevented the fulfillment of the safety function of secondary containment. The failure was caused when an inappropriately installed set screw on an internal spur gear caused the gear to bind on its shaft when it should have been free to rotate. There were no actual consequences to the health and safety of the public. Engineering evaluations have shown that, had a design basis accident occurred while the condition existed, the main control room, exclusion area boundary, and low population zone doses would have remained within the limits of 10CFR50.67.

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

REPORTED CONDITION

On March 7, 2003, at approximately 2:31 p.m. CST, the door assist device (DAD) on a secondary containment door in the auxiliary building failed, blocking the door (**DR**) open for a period of 78 minutes. At the time, the reactor was operating at approximately 87 percent power in end-of-cycle coastdown. This event is being reported in accordance with 10CFR50.73(a)(2)(v)(c) as a condition that could have prevented the fulfillment of the safety function of secondary containment.

INVESTIGATION and IMMEDIATE CORRECTIVE ACTION

Three secondary containment doors used for personnel access to the auxiliary building are equipped with assist devices that ease the opening of the door against differential pressure. The ventilation system draws a slight negative pressure in the building when operating normally, and in this condition, the doors may be opened manually without the use of the assist devices. When the standby gas treatment (GTS) system is operating, the differential pressure is greater, such that the doors are difficult to open. The assist device incorporates a gear-operated jack that opens the door far enough to break the differential pressure, allowing the door to be fully opened by hand.

At the time of the event, the GTS system was running for a surveillance test, causing the differential pressure across the doors to be higher than normal. At 2:31 p.m., the door was opened by a station employee using the assist device. An apparent internal failure of the assist device caused the jack to stick in the extended position. The jack could not be retracted, thus the door could not be fully closed. Approximately 78 minutes later, the assist device was removed, and the door was successfully closed. The assist device is not necessary for the safety function of the door, and it has not been re-installed pending completion of the failure analysis.

CAUSAL ANALYSIS

An internal inspection of the DAD found a set screw inappropriately installed in a spur gear. The spur gear is designed to rotate freely on its shaft for this application. However, it had been drilled and tapped for a set screw. A vendor representative confirmed that the spur gears are commercially available parts that may be drilled and tapped by the manufacturer. The use of the set screw is not specified for this application, and it could not be determined why or when it was installed. The presence of the set screw caused metal shavings to be gouged from the gear shaft, which eventually caused the gear to bind. This caused the jack to stick in the extended position.

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

CORRECTIVE ACTION TO PREVENT RECURRENCE

1. The DADs on the other auxiliary building door were inspected. Set screw holes were found in the corresponding spur gears, but no other set screws were found installed where not required.
2. The unnecessary set screw holes were peened to prevent installation of a set screw.
3. Maintenance instructions for the DADs will be revised with information concerning the unnecessary set screw hole in the spur gears.

PREVIOUS OCCURRENCE EVALUATION

A similar event occurred on August 8, 2000, as reported in LER 50-458/00-011-00. That failure was caused by the loss of a jam nut from an external section of the DAD. The corrective action for that event did not require disassembly of the DAD to the extent necessary for investigating the subject event of this report. Thus, the inappropriately installed set screw was not discovered at that time.

SAFETY SIGNIFICANCE

During the time the door was blocked open, the plant continued to operate normally. There were no actual consequences to the health and safety of the public. Engineering evaluations have shown that, had a design basis accident occurred while the condition existed, the main control room, exclusion area boundary, and low population zone doses would have remained within the limits of 10CFR50.67.

(NOTE: Energy Industry Component Identification codes are annotated as (**XX**).)