

February 10, 1994

U.S. Nuclear Regulatory Commission
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Washington, D.C. 20555

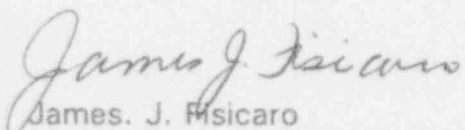
SUBJECT: River Bend Station - Unit 1
Docket No. 50-458
License No. NPF-47
Licensee Event Report 50-458/94-002-00
File Nos.: G9.5, G9.25.1.3

RBG-40061

Gentlemen:

In accordance with 10CFR50.73(a)(2)(i)(B), enclosed is the subject report.

Very truly yours,


James. J. Fisicaro
Manager - Safety Assessment
and Quality Verification
River Bend Nuclear Group

Enclosure

150033

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
700 Galleria Parkway
Atlanta, GA 30339-5957

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

Louisiana Department of Environmental Quality
Radiation Protection 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: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 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)

RIVER BEND STATION

DOCKET NUMBER (2)

05000458

PAGE (3)

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TITLE (4)

AIRLOCK INTERLOCK RENDERED INOPERABLE DURING MAINTENANCE DUE TO INEFFECTIVE COMMUNICATION AND PERSONNEL NOT RECOGNIZING CAUTIONS IN A WORK PACKAGE

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
01	11	94	94	-- 002 --	00	02	10	94	FACILITY NAME	DOCKET NUMBER
										05000
										05000
OPERATING MODE (9)		1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)		100	20.402(b)		20.405(c)		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	
			20.405(a)(1)(iii)		X 50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		(Specify in	
			20.405(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)		Abstract below	
			20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(x)		and in text,	
									NRC Form 366A)	

LICENSEE CONTACT FOR THIS LER (12)

NAME

DAVID N. LORFING, SUPERVISOR - NUCLEAR LICENSING

TELEPHONE NUMBER (Include Area Code)

(504) 381-4157

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)

YES

(If yes, complete EXPECTED SUBMISSION DATE).

X NO

EXPECTED

SUBMISSION

DATE (15)

MONTH

DAY

YEAR

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

On January 11, 1994, maintenance was being performed on the reactor building door in the 171' containment airlock which rendered the handle locking solenoid mechanism, and therefore the interlock, inoperable. The Technical Specification requirements for an airlock door to be locked at all times and dedication of an individual to assure that both doors are not opened simultaneously were not met. The investigation also revealed that during monthly preventive maintenance the interlock is similarly rendered inoperable without entry into the required Technical Specification action statement.

The primary causal factor for this event is that personnel authorizing and conducting the work activity did not effectively communicate the scope of work and recognize the cautions in the work package. Corrective actions include disciplinary action for responsible supervisory personnel. The preventive maintenance tasks and surveillance test procedures associated with the airlock doors will be reviewed by March 1, 1994 to assure full compliance with the Technical Specifications. As a conservative measure, until the procedure revisions resulting from the review are finalized, the Technical Specification action will be implemented whenever surveillances or maintenance activities are performed on the airlocks. Throughout the event, there was no breach of containment. At least one door was closed at all times with its seal inflated throughout this event.

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

REPORTED CONDITION

On January 11, 1994, with the reactor at 100 percent power (Operational Condition 1), maintenance was being performed on the reactor building door in the 171' containment airlock (*AL*) which rendered the handle locking solenoid (*SOL*) mechanism, and therefore the interlock, inoperable. Technical Specification 3.6.1.4, action b.2, which requires an airlock door to be locked at all times and dedication of an individual to assure that both doors are not opened simultaneously, was not met. The investigation also revealed that during monthly preventive maintenance the handle locking solenoid mechanism is rendered inoperable without entry into the required Technical Specification action statement. Therefore, this report is submitted pursuant to 10CFR50.73(a)(2)(i)(B) to document a condition prohibited by the Technical Specifications.

INVESTIGATION

The work on the airlock doors was to be performed under two maintenance work orders (MWOs). One of these MWOs was written to replace a cracked bushing located on the mechanism cover plate. The mechanism cover plate is located on the airlock door and provides support for the handle locking solenoid mechanism and access to the mechanical interlock mechanism, as well as other door internal components. The other MWO was to set the optimum distance between the mechanical interlock latch pawl and the gear teeth. After reviewing the work packages, mechanical maintenance personnel reviewed the MWO requirements with a system engineer and Operations personnel in the Work Management Center (WMC). There was considerable discussion concerning the retest requirements. The activities to be undertaken and applicable drawings were reviewed. The discussion concerning the interlock appears to have been focused on the mechanical interlock and personnel did not realize that the handle locking solenoid mechanism would be disabled while the mechanism cover plate was removed. The shift supervisor (SS) was consulted on the question of whether or not an airlock door should be padlocked when the maintenance activity was performed. As a result of focusing on the mechanical interlock, personnel in the Work Management Center advised the shift supervisor that the handle locking solenoid mechanism would not be disturbed. Therefore, the SS determined that the Technical Specification actions were not applicable.

One of the MWOs had specific steps plus a caution specifically requiring that the door opposite

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the work being performed be locked for Technical Specification considerations. The other MWO had a caution that advised ensuring that the handle locking solenoid mechanism be de-energized during door maintenance, implying that the handle locking solenoid mechanism would be inoperable during the maintenance activities to be performed on the door. Maintenance and Operations personnel conducting the work package review did not recognize these cautions and steps in the work package and the work proceeded. In violation of procedure, the steps described above were signed off by a Maintenance worker as having been completed. The Maintenance worker could have proceeded without violating procedures if he designated the steps as "N/A" (not applicable) and annotated the procedure to justify the "N/A" designation to be "per Operations decision."

Discussions with Maintenance personnel revealed that during past monthly preventive maintenance tasks, removal of the door cover plate has occurred. This renders the interlock inoperable; however the doors have not been locked as required by the Technical Specifications.

ROOT CAUSE

The primary causal factor for this event is that personnel authorizing and conducting the work activity did not effectively communicate the scope of work and recognize the cautions in the work package. During an interview with the plant manager, it was revealed that Maintenance and WMC personnel discussed the interlocks, but failed to recognize that the handle locking solenoid mechanism would be disabled. Contributing causes are as follows:

Preoccupation with determining the proper retest requirements arose from discussion at the daily planning meeting on the morning of January 11, 1994. This issue diverted WMC and Maintenance personnel from what might have been a more thorough review of the need to lock airlock doors in accordance with the Technical Specifications.

Maintenance work orders provide craftsman considerable latitude in regard to determining what steps should be worked in an MWO. Maintenance personnel are allowed by MWO instructions to designate a given step as "N/A" when it cannot be performed, or in the judgement of the craftsman, should not be performed, as long as a written justification of the "N/A" designation is

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provided. If the steps had been performed as written, each airlock door would have been locked as required by the Technical specifications.

Failure to take a conservative approach with regard to performance of the work and compliance with Technical Specification requirements by maintaining one door locked. Instead, personnel rationalized the decision to not lock the doors.

Licensee Event Reports 93-003-01 and 93-023-00 both report events in which handle locking solenoid mechanisms in airlock doors, and therefore the interlocks, were inoperable. Therefore, they have some similarity to LER 94-002. The event reported in LER 93-003-01 concerned two incidents in which the interlock did not prevent (1) deflation of an airlock door seal while the opposite door was open, and (2) equalization of pressure while an individual was attempting entry through one door while the opposite door was not closed. Prior to the resolution of the issues identified in LER 93-003-01, the mechanical interlock alone was considered to be sufficient for maintaining containment integrity and the electrical power to the handle locking solenoid mechanism had been eliminated. The event reported in LER 93-023-00 documented improper engagement of a containment airlock door handle locking solenoid mechanism plunger with the interlock lever of the door. This made the handle locking solenoid mechanism, and therefore the interlock, inoperable. The causes of the event documented in LER 93-003-01 include an inadequate review of the design requirements against the licensing basis in 1986, and an improperly performed 10CFR50.59 evaluation in 1990. The cause of the event documented in LER 93-023-00 was that inadequate testing and acceptance criteria was specified in a modification. These causes involve design-related issues which distinguish them from LER 94-002, which was caused primarily by personnel not communicating the scope of work involved in a maintenance activity and failing to recognize cautions in the work package.

CORRECTIVE ACTION

Maintenance and Work Management Center supervision have been disciplined concerning inadequate communications which led to this event and counseled on the need to maintain both a questioning attitude and a conservative approach to operations and compliance with Technical Specifications.

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Verbal instructions and a memorandum were issued to Maintenance supervisors directing them to ensure that whenever maintenance is performed on the airlock doors or on the interlock mechanisms, mechanical or handle locking solenoid, at least one of the doors remains closed, sealed and locked at all times. These instructions will remain in effect until the preventive maintenance tasks and surveillance test procedures associated with the airlock doors are reviewed to identify other instances in which the doors should be locked to assure full compliance with the Technical Specifications. This review will be completed by March 1, 1994. Procedures will be revised as necessary as result of this review. Until the procedure revisions resulting from the review are finalized, the Technical Specification action will be implemented whenever surveillance tests or maintenance activities are performed on the airlock doors.

Maintenance will review the guidance concerning the designation of MWO steps as "N/A." This guidance will be revised by March 1, 1994. The maintenance worker who inappropriately signed off steps as completed has been disciplined.

SAFETY ASSESSMENT

Throughout the event, there was no breach of containment. At least one door was closed at all times with its seal inflated throughout this event.

Note: Energy Industry Identification System Codes are indicated in the text as (*XX*).