ENTERGY

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July 5, 1994

U.S. Nuclear Regulatory Commission
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Subject: River Bend Station - Unit 1
Docket No. 50-458
License No. NPF-47
Licensee Event Report 50-458/94-014-00

File Nos.: G9.5, G9.25.1.3

RBG-40692

Gentlemen:

In accordance with 10CFR50.73, enclosed is a Licensee Event Report.

Very truly yours,

James J. Fisicaro

James J. Fisicaro
Director - Nuclear Safety

JJF/dch
enclosure

IE22
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cc: U.S. Nuclear Regulatory Commission
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ATTN: Administrator

NRC FORM 366 (5-92) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 5/31/95

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
River Bend Station	05000-458	1 of 4

TITLE (4)
Actuation of Multiple Division I Containment Isolation Valves Due to Inadequate Review of a Job Plan Change

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
									N/A	05000
06	02	94	94	--014--	00	07	05	94	FACILITY NAME: N/A	DOCKET NUMBER: 05000

OPERATING MODE (9)	5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)									
POWER LEVEL (10)	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		
			20.405(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		(Specify in abstract below and in text, NRC Form 366A)		
			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 (Include Area Code)
Timothy W. Gates, Supervisor - Nuclear Licensing	504-381-4866

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 15 single-spaced typewritten lines) (16)

On June 2, 1994 at 1705, with the plant in Operational Condition 5 (Refueling), a division I balance of plant (BOP) containment isolation signal was generated during replacement of the base of a relay. This resulted in closure of several containment isolation valves in various systems.

The root cause of this event was inattention to detail by the electrical discipline technical specialist in that the risk and consequences of a change to the job plan were not adequately reviewed and assessed. The electrical discipline technical specialist was counseled in a meeting with his supervision and the general manager - plant operations.

In accordance with Abnormal Operating Procedure, AOP - 0003, "Automatic Isolations," operations personnel confirmed that the plant responded properly to the ESF signal and each isolation occurred as expected. Therefore, this event did not compromise the health and safety of the public or plant personnel.

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

Reported Condition

On June 2, 1994 at 1705, with the plant in Operational Condition 5 (Refueling), a division I balance of plant (BOP) containment isolation signal was generated during replacement of the base of a relay. This resulted in closure of several containment isolation valves in various systems. Therefore, this event constitutes an engineered safety feature (ESF) actuation and is reported pursuant to 10CFR50.73(a)(2)(iv).

Investigation

During replacement of relay 1B21H*K163, as part of the Agastat relay replacement effort at River Bend Station, a problem with the relay base was discovered. The relay is located in the reactor water cleanup system (*CE*) isolation circuitry in control room panel 1H13-P623. Pins located in the base were found to have moved down inside the base, making it impossible for the relay to be properly installed. The relay replacement work was performed under an equipment qualification preventive maintenance task (EQPM). Following the discovery that the base required replacement, the work package was returned to the technical specialist assigned to the relay replacement. This technical specialist is very familiar with Agastat relay replacement work and the circuitry in the control room back panels. However, he did not identify the common, or daisy chain, neutral which led to the ESF actuation.

Following revision of the work package, the technical specialist should have obtained a review of the work package by system engineering. This conclusion is based on Maintenance Section Procedure, MSP - 0003, "Preventive Maintenance Program," and Administrative Procedure, ADM - 028, "Maintenance Work Order." In addition, the shift superintendent was not notified to authorize start of the rework, which was also required by procedure.

The job plan required determinating a lead at terminal B4. When this was done, it resulted in breaking a daisy chain neutral for 14 relays, 4 status lights, and 4 meters. All of this equipment is located in control room panel 1H13-P623. De-energization of the affected equipment generated a division I BOP containment isolation signal which resulted in isolations in the condensate transfer system (*KA*), fire protection water system (*KP*), service air system (*LF*), instrument air system (*LF*), spent fuel pool cooling system (*DA*), reactor plant component cooling water system (*CC*), and reactor recirculation system (*AD*) hydraulic lines. In addition, tripping of two supply breakers (*52*) for non-safety related equipment powered from 480VAC emergency switchgear occurred.

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

Root Cause

The root cause of this event was inattention to detail by the electrical discipline technical specialist. This technical specialist is very familiar with Agastat relay replacement work and has been the leader of the Agastat relay replacement project for the last seven months. However, in this particular case, he did not adequately review and assess the risk and consequences of the change to the job plan. A contributing factor was the technical specialist did not obtain system engineering review of the work package.

A review of previous LERs involving ESF actuations due to inadequate reviews was conducted for LERs since 1992. This revealed similarities in LERs 93-010, 93-016, and 93-017. Corrective actions for these events included procedure changes, training for workers, and emphasizing management policies and expectations.

Corrective Action

- The electrical discipline technical specialist was counseled in a meeting with his supervision and the general manager - plant operations.

- Briefings for maintenance management personnel are being conducted to emphasize the importance of obtaining appropriate cross-disciplinary reviews during corrective rework under a preventive maintenance (PM) work order. Because performing corrective rework under a PM work order is a new process, briefings will review and emphasize the requirements of this process pursuant to MSP-0003, "Preventive Maintenance Program." These briefings will be completed by July 11, 1994.

- The long-term performance improvement plan includes an initiative to address human performance effectiveness. The objectives of this program are improvement in the River Bend Station human performance enhancement system (HPES), development of a human performance database, and improvement in the effectiveness of the self-checking program. Details of this program are provided in Section 13 of the LTPIP, submitted to the NRC on March 28, 1994 (RBG-40428).

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

- The efforts to address ESF actuations at RBS contain the following elements:

  - Before refueling outage 5 (RF-5), RBS performed a risk evaluation to study previous ESFs involving losses of shutdown cooling. This effort has contributed to limiting the challenges to shutdown cooling during RF-5.

  - During the course of RF-5, RBS initiated a limited study to review other types of outage-related ESF actuations that occurred during previous refueling outages. This study compared ESF actuations occurring in previous outages with those that had occurred in RF-5 through June 2, 1994. Engineered safety feature actuations for RF-5 included in this study are documented in LERs 94-007, 94-011, 94-013, and 94-014. The objective of this review was to identify commonalities between RF-5 events and previous events. Recommendations to reduce the potential for future outage-related ESF actuations were developed.

  - The scope of this review will be expanded to include ESF actuations occurring during operating conditions as well as outage-related ESF actuations. This evaluation will be completed by October 31, 1994.

  - Plant maintenance is establishing a multi-disciplinary team to evaluate practices and processes which will apply to all surveillances and maintenance work. The goal of the team will be to identify improvements to reduce testing errors and thus, ESF actuations. Improvements in the area of work practices, testing methods, and plant testability will be considered. In addition, this team will establish an improved process for providing test jacks on terminals to facilitate periodic testing.

SAFETY ASSESSMENT

In accordance with Abnormal Operating Procedure, AOP - 0003, "Automatic Isolations," operations personnel confirmed that the plant responded properly to the ESF signal and each isolation occurred as expected. Therefore, this event did not compromise the health and safety of the public or plant personnel.

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