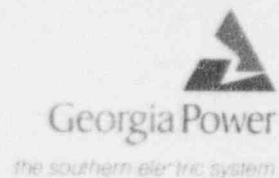


Georgia Power Company  
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Telephone 205 877-7122

C. K. McCoy  
Vice President, Nuclear  
Vogtle Project

April 9, 1993



ELV-05377

Docket No. 50-424

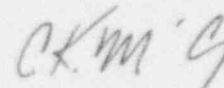
U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D. C. 20555

Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT  
LICENSEE EVENT REPORT  
LOSS OF RESIDUAL HEAT REMOVAL DUE TO INADVERTENT  
CLOSURE OF RESIDUAL HEAT REMOVAL PUMP INLET VALVE

In accordance with the requirements of 10 CFR 50.73, Georgia Power Company submits the enclosed report related to an event which occurred on March 16, 1993.

Sincerely,

  
C. K. McCoy

CKM/NJS

Enclosure: LER 50-424/1993-003

xc: Georgia Power Company  
Mr. W. B. Shipman  
Mr. M. Sheibani  
NORMS

U. S. Nuclear Regulatory Commission  
Mr. S. D. Ebnetter, Regional Administrator  
Mr. D. S. Hood, Licensing Project Manager, NRR  
Mr. B. R. Bonser, Senior Resident Inspector, Vogtle

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PDR ADDCK 05000424  
S PDR

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## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) VOGTLE ELECTRIC GENERATING PLANT - UNIT 1										DOCKET NUMBER (2) 0 5 0 0 4 2 4				PAGE (3) 1 OF 3	
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TITLE (4)

LOSS OF RESIDUAL HEAT REMOVAL DUE TO INADVERTENT CLOSURE OF RHR PUMP INLET VALVE

EVENT DATE (5)			LER NUMBER (6)				REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)			
MONTH	DAY	YEAR	YEAR	SEQ NUM	REV	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S)		
0 3	1 6	9 3	9 3	0 0 3	0 0	0 4	0 9	9 3			0 5 0 0 0		
												0 5 0 0 0	

OPERATING MODE (9)		5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR (11)									
POWER LEVEL	0	20.402(b)	20.405(c)	X	50.73(e)(2)(iv)	73.71(b)						
		20.405(a)(1)(i)	50.36(c)(1)		50.73(e)(2)(v)	73.71(c)						
		20.405(a)(1)(ii)	50.36(c)(2)		50.73(e)(2)(vii)	OTHER (Specify in						
		20.405(a)(1)(iii)	50.73(e)(2)(i)		50.73(e)(2)(viii)(A)	Abstract below)						
		20.405(a)(1)(iv)	50.73(e)(2)(ii)		50.73(e)(2)(viii)(B)							
		20.405(a)(1)(v)	50.73(e)(2)(iii)		50.73(e)(2)(x)							

LICENSEE CONTACT FOR THIS LER (12)

NAME		TELEPHONE NUMBER	
MEHDI SHEIBANI, NUCLEAR SAFETY AND COMPLIANCE		AREA CODE	706 826-3209

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

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORT TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORT TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (if yes, complete EXPECTED SUBMISSION DATE) ☒ NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

ABSTRACT (16)

On March 16, 1993, Unit 1 was in cold shutdown for a refueling outage, and personnel were preparing to test a design change installed in the process protection system. While troubleshooting an indication on the trip status light board, which was affected by the change, a circuit card was pulled and a suction isolation valve to the operating residual heat removal pump closed. Operators saw indications of the closing and had the valve reopened within 2 minutes. During this time, the reactor coolant system temperature rose from 160 degrees F to 161 degrees F due to core decay heat.

The cause of this event was inadequate reviews of the affected circuitry prior to removing the circuit card. A technician and his foreman had performed these reviews, but had failed to identify all the components affected by the circuit card. The technician and foreman involved have been counseled regarding the importance of adequate reviews.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (5)			PAGE (3)		
		YEAR	SEQ NUM	REV			
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1	05000424	93	003	00	2	OF	3

TEXT

## A. REQUIREMENT FOR REPORT

This report is required per 10 CFR 50.73 (a)(2)(v) because a condition existed briefly which prevented the fulfillment of a safety function of a system needed to remove residual heat.

## B. UNIT STATUS AT TIME OF EVENT

At the time of this event, Unit 1 was in Mode 5 (Cold Shutdown) at 0 percent of rated thermal power. The unit was in a refueling outage with reactor coolant system (RCS) pressure at 280 psi and temperature at 160 degrees F. The solid state protection system (SSPS) was in test for maintenance. One train of the residual heat removal (RHR) system was out of service for maintenance. Other than that described herein, there was no other inoperable equipment which contributed to the occurrence of this event.

## C. DESCRIPTION OF EVENT

On March 16, 1993, personnel had installed a design change in the 7300 process control system and were preparing to perform a functional test. The test procedure states that there should be no lights illuminated on the trip status light board (TSLB). However, light "431D", which indicates an over temperature delta temperature (OTDT) turbine runback bistable, was lit. While performing troubleshooting, an instrumentation and controls (I&C) technician suspected that a blown fuse on a circuit card supplying 118 volt power may have caused the 431D light indication. He consulted his foreman regarding the potential effects of removing the card. After researching the design change package (DCP), the foreman responded that there should be no adverse effects. At 1640 EST, the technician pulled the circuit card from its rack. At the main control board, operators observed decreasing flow conditions from the operating RHR pump and noticed that the pump suction isolation valve, 1HV-8701B, was closing. The operators immediately reopened the valve using the handswitch. Due to the stroke time of this valve, the process of fully closing and fully reopening took approximately 2 minutes. During this period of time, the RCS temperature rose approximately 1 degree, from 160 degrees F to 161 degrees F, due to core decay heat. Operators transferred control of the valve to a remote shutdown panel to prevent another spurious closure while the cause of the event was being investigated.

## D. CAUSE OF EVENT

The cause of this event was an inadequate review of the affected circuitry prior to removing the circuit card. The technician and the foreman had performed these reviews, but had failed to identify all the components affected by the circuit card. There were no unusual characteristics of the work location which contributed to the occurrence of these cognitive personnel errors by the Georgia Power Company personnel involved.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (5)			PAGE (3)		
		YEAR	SEQ NUM	REV			
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1	0 5 0 0 0 4 2 4	9 3	0 0 3	0 0	3	OF	3

TEXT

## E. ANALYSIS OF EVENT

Due to the short period of time that the pump suction isolation valve was closed or partially closed (approximately 2 minutes), the increase in potential for core damage was negligible. The RCS temperature rose only 1 degree F during this time. Furthermore, the RCS was solid at the time of the event, and two steam generators were available to provide RCS cooling had it been necessary to do so. Also, no accident condition occurred during this period which required additional core cooling capability. Finally, this event could not have occurred while the unit was at power because RHR is only used when the unit is shut down. Based on these considerations, there was no adverse effect on plant safety or on the health and safety of the public as a result of this event.

## F. CORRECTIVE ACTIONS

1. The technician and foreman involved have been counseled regarding the importance of adequate reviews.
2. Instrumentation and Controls personnel have been briefed regarding this event and the enhanced specific work controls to use when performing this type of work.

## G. ADDITIONAL INFORMATION

1. Failed Components:

None

2. Previous Similar Events:

None

3. Energy Industry Identification System:

Reactor Coolant System - AB

Residual Heat Removal System - BP

7300 Process Control System - JA