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C. K. McCoy
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Georgia Power

the southern electric system

December 7, 1992

ELV-05090
000697

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
REACTOR COOLANT PUMP THERMAL BARRIER
ISOLATION VALVES DECLARED INOPERABLE

In accordance with 10 CFR 50.73, Georgia Power Company (GPC) hereby submits the enclosed report related to an event which was discovered on November 9, 1992.

Sincerely,

C. K. McCoy
C. K. McCoy

CKM/NJS

Enclosure: LER 50-424/1992-009

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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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) VOGTLE ELECTRIC GENERATING PLANT - UNIT 1										DOCKET NUMBER (2) 0 5 0 0 0 4 2 4				PAGE (3) 1 OF 3			
TITLE (4) RCP THERMAL BARRIER ISOLATION VALVES DECLARED INOPERABLE																	
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)				
11	09	92	92	009	00	12	07	92					05000				
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR (11)																	
OPERATING MODE (9)		1		20.40 th				20.405(c)				50.73(a)(2)(iv)				73.71(b)	
POWER LEVEL		100		20.405(i)				50.36(c)(1)				50.73(a)(2)(v)				73.71(c)	
				20.405(ii)				50.36(c)(2)				50.73(a)(2)(vii)				OTHER (Specify in Abstract below)	
				20.405(a)(1)(iii)				X 50.73(a)(2)(i)				50.73(a)(2)(viii)(A)					
				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							
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	MANUFACTURER	REPORT TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORT TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORT TO NRC	CAUSE		
SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED SUBMISSION DATE (15)		MONTH		DAY		YEAR	
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)										<input checked="" type="checkbox"/> NO							
ABSTRACT (16)																	

In response to Generic Letter 89-10, "Safety-Related Motor-Operated Valve Testing and Surveillance," Southern Company Services (SCS) Vogtle Project engineering has continued to review and refine test equipment accuracies for the motor-operated valve analysis and testing system (MOVATS). In July 1992, SCS engineering, using new vendor supplied MOVATS accuracy data, verified that reactor coolant pump thermal barrier isolation valves 1HV-1905⁵ and 1HV-19057 had adequate thrust to close when required. However, on November 9, 1992, SCS engineering advised plant personnel that data from the wrong (i.e., adjacent) data column had been utilized for the evaluation and, upon reanalysis using the correct data, valves 1HV-19055 and 1HV-19057 may not have adequate thrust to close when required. These valves were conservatively declared inoperable and the Technical Specification (TS) 3.7.12 action requirements were entered. The close torque switch settings were increased from 1.0 to 2.25 and on November 11, 1992, the TS action requirements were exited. Further investigation by SCS engineering found no similar conditions. The cause of the event was new MOVATS vendor data which specified a change in the test equipment inaccuracies, placing the thrust values outside of acceptable limits.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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		YEAR	SEQ NUM	REV			
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1	0 5 0 0 0 4 2 4	9 2	0 0 9	0 0	2	OF	3

TEXT

A. REQUIREMENT FOR REPORT

This report is required per 10 CFR 50.73(a)(2)(i) since Unit 1 reactor coolant pump (RCP) thermal barrier isolation valves were discovered to be inoperable, per Technical Specification (TS) 3.7.12 requirements, in excess of the 7-day limiting condition for operation. Therefore, the unit had operated in a condition prohibited by the TS.

B. UNIT STATUS AT TIME OF EVENT

At the time of discovery, Unit 1 was in Mode 1 at 100% of rated thermal power. Other than that described herein, there was no inoperable equipment which contributed to the occurrence of this event.

C. DESCRIPTION OF EVENT

In response to Generic Letter 89-10, "Safety-Related Motor-Operated Valve Testing and Surveillance," Southern Company Services (SCS) Vogtle Project engineering has continued to review and refine test equipment accuracies for the motor-operated valve analysis and testing system (MOVATS). Reactor coolant pump thermal barrier isolation valves 1HV-19055 and 1HV-19057 provide a redundant isolation function to prevent a spill of the reactor coolant from a postulated breach in the RCP thermal barrier concurrent with a break in the nonsafety-related auxiliary component cooling water piping downstream of the common return header valve, 1HV-2041. In July 1992, SCS engineering, using new vendor supplied MOVATS accuracy data, verified that valves 1HV-19055 and 1HV-19057 had adequate thrust to close when required. However, on November 9, 1992, SCS engineering advised plant personnel that the thrust data used for the evaluation had been selected from the wrong (i.e., adjacent) data column. As a result, the as-left total thrust data had been utilized for the evaluation instead of the thrust at torque switch trip data. Upon reanalysis using the correct data, it was found that valves 1HV-19055 and 1HV-19057 may not have had adequate thrust to close when required. Valves 1HV-19055 and 1HV-19057 were conservatively declared inoperable and the TS 3.7.12 action requirements were entered (viz., restore the RCP thermal barrier isolation function to operable status within 7 days or be in at least Hot Standby within the next 6 hours and in Cold Shutdown within the following 30 hours). The close torque switch settings were increased from 1.0 to 2.25, and on November 11, 1992, the TS action requirements were exited. Further investigation by SCS engineering found no similar conditions.

D. CAUSE OF EVENT

The cause of the event was new MOVATS vendor data which specified a change in the test equipment inaccuracies. The original MOVATS specifications for test inaccuracies were sufficiently small so that the thrust at torque switch trip values for 1HV-19055 and 1HV-19057 fell within the acceptable range. Using revised and larger inaccuracies, submitted from the MOVATS vendor, resulted in the torque values for these valves being outside of the acceptable limits.

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TEXT

E. ANALYSIS OF EVENT

The revised inaccuracies resulted in torque values that were within 3 percent of the acceptable limits. Additionally, an evaluation was performed to determine the possible consequences of a combined failure to close of an individual RCP thermal barrier isolation valve and a common return header valve. Based on conservative estimates of leakage flowrates and operator action times, it was determined that offsite doses for such a scenario could have exceeded the current Vogtle bounding analysis for a loss of coolant accident (LOCA) outside of the containment. However, the resulting doses would still have been well within the 10 CFR Part 100 offsite dose limits. Finally, it is noted that no actual breach of a RCP thermal barrier has ever occurred at VEGP. Based on these considerations, the inadequate torque switch setting and application of the revised MOVATS inaccuracies did not result in an adverse effect on plant safety or on the health and safety of the public.

F. CORRECTIVE ACTIONS

1. The close torque switch settings for valves 1HV-19055 and 1HV-19057 were conservatively increased from 1.0 to 2.25, in order to provide the necessary closure thrust.
2. SCS engineering verified that the calculations to account for the new MOVATS inaccuracies for all other valves had utilized the correct as-left thrust data.
3. Diagnostic testing for valves 1HV-19055 and 1HV-19057 will be performed during the next Unit 1 refueling outage which is currently scheduled to begin March 13, 1993.

G. ADDITIONAL INFORMATION

1. Failed Components Identification

None

2. Previous Similar Events

LER 50-425/1991-012-01, dated February 13 Actions following this previous event led to the discovery of the inaccuracies described in this current LER.

3. Energy Industry Identification System Codes

Closed/Component Cooling Water - CC

Reactor Coolant System (PWR) - AB