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The southern electric system

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HL-807  
0364V

October 31, 1989

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

PLANT HATCH - UNIT 1  
NRC DOCKET 50-321  
OPERATING LICENSE DPR-57  
LICENSEE EVENT REPORT  
PERSONNEL ERROR RESULTS IN  
MISSED TECHNICAL SPECIFICATION SURVEILLANCE

Gentlemen:

In accordance with the requirements of 10 CFR 50.73(a)(2)(i), Georgia Power Company is submitting the enclosed Licensee Event Report (LER) concerning personnel error which resulted in the inadequate performance of a Technical Specifications surveillance. This event occurred at Plant Hatch - Unit 1.

Sincerely,

  
W. G. Hairston, III

JKB/eb

Enclosure: LER 50-321/1989-13

c: (See next page.)

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U.S. Nuclear Regulatory Commission  
October 31, 1989  
Page Two

c: Georgia Power Company  
Mr. H. C. Nix, General Manager - Nuclear Plant  
Mr. J. D. Heidt, Manager Nuclear Engineering and Licensing - Hatch  
GO-NORMS

U.S. Nuclear Regulatory Commission, Washington, D.C.  
Mr. L. P. Crocker, Licensing Project Manager - Hatch

U.S. Nuclear Regulatory Commission, Region II  
Mr. S. D. Ebnetter, Regional Administrator  
Mr. J. E. Menning, Senior Resident Inspector - Hatch

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) <b>PLANT HATCH, UNIT 1</b>	DOCKET NUMBER (2) <b>0 5 0 0 0 3 2 1 1</b>	PAGE (3) <b>1 OF 0 5</b>
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TITLE (4)  
**PERSONNEL ERROR RESULTS IN MISSED TECHNICAL SPECIFICATIONS SURVEILLANCE**

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 NAMES		
									DOCKET NUMBER(S)		
<b>10</b>	<b>03</b>	<b>89</b>	<b>89</b>	<b>07</b>	<b>13</b>	<b>10</b>	<b>03</b>	<b>89</b>	<b>0 5 0 0 0</b>		
									<b>0 5 0 0 0</b>		

OPERATING MODE (9) <b>11</b>	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §. (Check one or more of the following) (11)										
	POWER LEVEL (10) <b>1100</b>	20.402(b)			20.405(e)			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 (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)			<input checked="" type="checkbox"/>			50.73(a)(2)(i)			
		20.405(a)(1)(iv)						50.73(a)(2)(ii)			
20.405(a)(1)(v)						50.73(a)(2)(iii)					
						50.73(a)(2)(viii)(A)			50.73(a)(2)(viii)(B)		
						50.73(a)(2)(ix)					

LICENSEE CONTACT FOR THIS LER (12)									
NAME							TELEPHONE NUMBER		
<b>Steven B. Tipps, Manager Nuclear Safety and Compliance, Hatch</b>							AREA CODE	<b>9 1 7 2 3 1 6 7 1 - 1 7 1 8 1 1</b>	
							<b>9 1 7 2</b>		

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
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO											

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

On 10/03/89, at approximately 0305 CDT, Unit One was in the Run mode at an approximate power level of 2433 CMWT (approximately 100 percent of rated thermal power). At that time, Reactor Water Cleanup (RWCU, EIIS Code CE) system valve 1G31-F020 was closed rendering the inservice reactor coolant continuous in-line conductivity monitor (EIIS Code KN) inoperable. However, compensatory actions were not taken as required by Unit 1 Technical Specifications section 4.6.F.2 to ensure that reactor coolant conductivity was monitored on a continuous or periodic basis. The condition was identified at approximately 2315 CDT, on 10/03/89, at which time Limiting Condition for Operation (LCO) 1-89-468 was initiated to ensure that periodic analysis of the reactor coolant for conductivity was performed as required by the Technical Specifications.

The root cause of the event was cognitive personnel error. Licensed personnel failed to recognize that closing of the valve rendered the conductivity monitor inoperable and that compensatory actions were required.

Corrective actions for the event included the initiation of an in-line conductivity surveillance as required by the Technical Specifications and will include the counseling of involved personnel.



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TEXT (If more space is required, use additional NRC Form 388A's) (17)

PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor  
Energy Industry Identification System codes are identified in the text as (EIIIS Code XX).

SUMMARY OF EVENT

On 10/03/89, at approximately 0305 CDT, Unit One was in the Run mode at an approximate power level of 2433 CMWT (approximately 100 percent of rated thermal power). At that time, Reactor Water Cleanup (RWCU, EIIIS Code CE) system valve 1G31-F020 was closed rendering the inservice reactor coolant continuous in-line conductivity monitor inoperable. However, compensatory actions were not taken as required by Unit 1 Technical Specifications section 4.6.F.2 to ensure that reactor coolant conductivity was monitored on a continuous or periodic basis. The condition was identified at approximately 2315 CDT, on 10/03/89, at which time Limiting Condition for Operation (LCO) 1-89-468 was initiated to ensure that periodic analysis of the reactor coolant for conductivity was performed as required by the Technical Specifications.

The root cause of the event was cognitive personnel error. Licensed personnel failed to recognize that closing of the valve rendered the conductivity monitor inoperable and that compensatory actions were required.

Corrective actions for the event included the initiation of an in-line conductivity surveillance as required by the Technical Specifications and will include the counseling of involved personnel.

DESCRIPTION OF EVENT

On 10/03/89, at approximately 0305 CDT, Unit 1 was in the Run mode at an approximate power level of 2433 CMWT (approximately 100 percent of rated thermal power). At that time, a clearance was implemented to close RWCU valve 1G31-F020 to support change-out of sample line filter 1G31-D010A. Also at that time, the reactor coolant in-line continuous conductivity monitoring system was aligned to analyze reactor coolant via the RWCU system. Closing valve 1G31-F020 resulted in isolating flow to the monitoring system. Reactor coolant was then no longer being analyzed for conductivity on a continuous basis. The licensed shift supervisor responsible for issuing the clearance did not realize this and, thus, failed to take compensatory actions as required by Unit 1 Technical Specifications section 4.6.F.2. The specification requires that reactor coolant be monitored continuously for conductivity and that whenever the continuous monitoring system is inoperable, an in-line conductivity measurement be obtained every four hours when reactor coolant is greater than 212°F.

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TEXT (If more space is required, use additional NRC Form 386A's) (17)

Consequently, at the time the valve was closed, the reactor coolant was not being monitored continuously for conductivity and the four-hour surveillance was not initiated.

At approximately 1800 CDT on 10/03/89, a once per shift channel check on the reactor coolant conductivity recorder was performed as required by 34SV-SUV-019-2S, "Surveillance Checks." However, isolating flow to the conductivity element did not produce a sufficient change to the reading on the recorder such that the channel check would enable identification of the condition. Although conductivity readings normally would be expected to rise in the presence of stagnant water, other operational parameters can also influence conductivity readings at low levels.

At approximately 2315 CDT, on 10/03/89, an RWCU system isolation occurred on system high differential flow. (This event was reported in LER 50-321/1989-012). At that time, licensed personnel, realizing that a RWCU isolation would prevent flow to the RWCU input of the reactor coolant conductivity monitor, directed chemistry personnel to transfer the conductivity system to the Recirculation system (EISS Code AD) input. Upon transferring the system, it was determined that the conductivity monitor associated with the Recirculation input (1P33-N012) was not operating properly. Consequently, at approximately 2315 CDT, the in-line continuous conductivity monitoring system was declared inoperable and the four hour conductivity surveillance required by the Technical Specifications was initiated. Limiting Condition for Operation (LCO) 1-89-468 was issued to track the surveillance.

During the investigation of the inoperable conductivity monitor, 1P33-N012, it was determined that the 1G31-F020 valve had been closed rendering conductivity monitor 1G31-N009 inoperable without any compensatory action being taken. Deficiency Card 1-89-4078 was written to document the condition.

On 10/04/89, the RWCU system was returned to service by approximately 0400 CDT. On 10/05/89, at approximately 1526 CDT, LCO 1-89-468 was terminated following completion of the change-out of the sample line filter 1G31-D010A and restoration of flow to conductivity monitor 1G31-N009. With the RWCU input to the reactor coolant conductivity monitor operable the four hour conductivity surveillance was discontinued with the last sample having been taken at 1420 CDT on 10/05/89.



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

CAUSE OF THE EVENT

The root cause of the event was cognitive personnel error. Licensed personnel failed to recognize that closing valve 1G31-F020 resulted in an inoperable conductivity monitor. Consequently, compensatory actions were not taken to ensure that the surveillance requirements for Unit 1 Technical Specification section 4.6.F.2 were met.

The cause of the malfunctioning of conductivity monitor 1P33-N012 was that an associated pressure control valve was stuck in a throttled position resulting in inadequate flow to the monitor. The valve was cycled during investigation of the event resulting in proper operation.

REPORTABILITY ANALYSIS AND SAFETY ASSESSMENT

This report is required per 10 CFR 50.73(a)(2)(i)(B) because a condition existed which was prohibited by the Technical Specifications. Specifically, reactor coolant conductivity was not monitored continuously nor were four-hour measurements obtained as required by Unit 1 Technical Specifications section 4.6.F.2 for a period of approximately 20 hours.

Reactor coolant chemistry limits are established to prevent damage to the stainless steel and zircaloy materials in the primary pressure boundary. Reactor coolant conductivity provides an indication of abnormal conditions and of the presence of unusual materials in the reactor coolant. When the reactor coolant is greater than 212°F, the Technical Specifications require that reactor coolant conductivity be maintained below 2 micro-mhos/cm. In the event, reactor coolant conductivity was approximately 0.09 micro-mhos/cm at approximately 0305 CDT, on 10/03/89. At approximately 2315 CDT on 10/03/89, the initial four-hour sample required by LCO 1-89-468 showed a conductivity of 0.145 micro-mhos/cm. The nature of reactor coolant conductivity is such that any significant increases resulting in exceeding the Technical Specifications limit would not have been abated in a 20 hour period. Based on this information, it is concluded that reactor water conductivity did not exceed the Technical Specifications limit during the event.

If the missed surveillance had not been identified as a result of the RWCU isolation, any increase in reactor coolant conductivity would have been identified during in-line conductivity analysis required by procedure 62CH-SAM-030-OS, "Primary Coolant Sampling." This analysis is performed daily and is performed independently of Technical Specifications requirements. Also, abnormal conditions affecting reactor coolant would be identified during daily pH and chloride analysis of the reactor coolant required by 62CH-SAM-030-OS.

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TEXT (If more space is required, use additional NRC Form 288A's) (17)

Based on the above information, it is concluded that this event had no adverse impact on nuclear plant safety. This analysis applies to all operating conditions.

CORRECTIVE ACTIONS

An in-line conductivity measurement was obtained every four hours as required by the Technical Specifications from 2315 CDT on 10/03/89, when the tracking LCG was initiated, to 1526 CDT on 10/05/89, when the RWCU input to the reactor coolant conductivity monitor had been restored to operable status. Personnel involved in the event will be counseled regarding the consequences of this event and of the need for constant attention to detail.

ADDITIONAL INFORMATION

No systems other than the conductivity monitoring system were affected by this event.

Similar events in which personnel error resulted in a missed Technical Specifications surveillance were reported in the following LERs:

- 50-366/1987-016, dated 01/18/88
- 50-366/1988-005, dated 03/31/88
- 50-366/1988-009, dated 04/18/88
- 50-366/1988-019, dated 07/05/88
- 50-366/1989-001, dated 02/13/89
- 50-366/1989-002, dated 02/28/89
- 50-321/1989-004, dated 03/29/89

Corrective actions for these events included disciplining/counseling responsible individuals and revising plant procedures and forms. These corrective actions would not have prevented the event addressed in this report in that the root cause of the event is attributed to personnel error and the personnel disciplined/counseled as a result of previous events were not involved in this event.