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Georgia Power

the southern electric system

HL-3072
004507

December 21, 1992

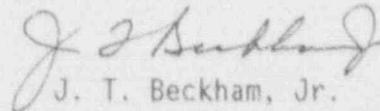
U.S. Nuclear Regulatory Commission
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PLANT HATCH - UNIT 2
NRC DOCKET 50-366
OPERATING LICENSE NPF-5
LICENSEE EVENT REPORT
LESS THAN ADEQUATE PROCEDURES AND PERSONNEL ERROR
RESULT IN TECHNICAL SPECIFICATIONS NONCOMPLIANCE

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 less than adequate procedures and a personnel error which resulted in a missed Technical Specification surveillance. This event occurred at Plant Hatch - Unit 2.

Sincerely,


J. T. Beckham, Jr.

JKB/cr

Enclosure: LER 50-366/1992-025

cc: Georgia Power Company
Mr. H. L. Sumner, General Manager - Nuclear Plant
NORMS

U.S. Nuclear Regulatory Commission, Washington, D.C.
Mr. K. 'abbour, Licensing Project Manager - Hatch

U.S. Nuclear Regulatory Commission, Region II
Mr. S. D. Ebnetter, Regional Administrator
Mr. L. D. Wert, Senior Resident Inspector - Hatch

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LICENSEE EVENT REPORT (LER)

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TITLE (4)
LESS THAN ADEQUATE PROCEDURES AND PERSONNEL ERROR RESULT IN TECHNICAL SPECIFICATION NONCOMPLIANCES

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	19	92	92	025	00	12	21	92		05000
										05000

OPERATING MODE (9) 2	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR (11)							
POWER LEVEL 001	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 (Specify in				
	20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	Abstract below)				
	20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(vi)(i)(B)					
	20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)					

LICENSEE CONTACT FOR THIS LER (12)

NAME STEVEN B. TIPPS, MANAGER NUCLEAR SAFETY AND COMPLIANCE, HATCH	TELEPHONE NUMBER 912 367-7851
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COMPLETE ONE LINE FOR EACH FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORT TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORT TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH DAY YEAR
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ABSTRACT (16)

On 11/19/92, at 2210 CST, Unit 2 was in the Startup mode at 24 CMWT (1 percent of rated thermal power) following the tenth refueling outage, with reactor pressure at 155 psig. At that time, licensed personnel discovered that Analog Transmitter Trip System (ATTS) trip units for the High Pressure Coolant Injection system (HPCI) and the Reactor Core Isolation Cooling system (RCIC) had not been functionally tested as required by the Technical Specifications (Tech Specs). Specifically, it was understood that a plant condition had been entered for which the instruments were required to be operable (i.e., the unit in the Startup mode with reactor pressure greater than 150 psig); however, the Tech Specs required functional tests which demonstrate operability of the instruments had not been performed. Reactor pressure was therefore decreased to below 150 psig, at which point it was believed that the trip units were not required to be operable. By 2348 CST, the trip units had been tested in accordance with the appropriate procedures. Reactor startup was subsequently resumed. On 11/20/92, further investigation of the event revealed that the trip units also affected Primary Containment Isolation System (PCIS) valves; as such, Tech Specs require that with the trip units inoperable, the associated valves are to be maintained closed. However, this action was not taken on 11/19/92 because the shift supervisor did not realize that PCIS was affected by these trip units. At the time of this discovery, the trip units had already been tested, thus, no further actions were necessary. The causes of this event were personnel error and less than adequate procedures. Corrective actions include counseling personnel, revising or developing new procedures, reviewing procedures for similar conditions, and evaluating the Technical Specifications surveillance program.

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PLANT AND SYSTEM DESCRIPTION

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

DESCRIPTION OF EVENT

On 11/19/92, at 2210 CST, Unit 2 was in the Startup mode at 24 CMWT (1 percent of rated thermal power) following the tenth refueling outage, with reactor pressure at 155 psig. At that time, licensed personnel discovered that Analog Transmitter Trip System (ATTS, EIIIS Code JA) trip units for the High Pressure Coolant Injection system (HPCI, EIIIS Code BJ) and the Reactor Core Isolation Cooling system (RCIC, EIIIS Code BN) had not been functionally tested as required by the Technical Specifications. Specifically, a plant condition had been entered requiring the instruments to be operable (i.e., the Startup mode had been entered and reactor pressure had been increased to greater than 150 psig); however, the Technical Specifications required functional tests which demonstrate operability of the instruments had not been performed.

The instruments were considered to be inoperable due to the missed surveillance. Based on the scheduling of the surveillances, the licensed personnel were led to believe at the time that these instruments provided only initiation and/or trip signals to the HPCI and RCIC systems. Since these systems are not required to be operable at a reactor pressure of less than 150 psig, it was decided to insert control rods to reduce reactor pressure to below this point. After reducing reactor pressure to below 150 psig, the ATTS trip units were functionally tested in accordance with the appropriate sections of procedures 57SV-SUV-011-2S, "ATTS Panel 2H11-P925 Channel Functional Test and Calibration," and 57SV-SUV-012-2S, "ATTS Panel 2H11-P926 Channel Functional Test and Calibration." The functional tests were satisfactorily completed by 2348 CST and reactor startup was subsequently resumed.

On 11/20/92, while investigating the event, nonlicensed Nuclear Safety and Compliance personnel determined that of the HPCI and RCIC trip units involved only two of the instruments provided a trip function to the HPCI system. The other trip units provided input signals to trip systems which function to provide an isolation signal to the following Primary Containment Isolation System (PCIS, EIIIS Code JM) valves:

- 2E41-F002, HPCI steam supply line inboard isolation valve,
- 2E41-F003, HPCI steam supply line outboard isolation valve,
- 2E41-F111, HPCI turbine exhaust vacuum breaker inboard isolation valve,
- 2E41-F104, HPCI turbine exhaust vacuum breaker outboard isolation valve,
- 2E41-F041, HPCI pump Torus suction outboard isolation valve,
- 2E41-F042, HPCI pump Torus suction inboard isolation valve,
- 2E51-F007, RCIC steam supply line inboard isolation valve,
- 2E51-F008, RCIC steam supply line outboard isolation valve,
- 2E51-F105, RCIC turbine exhaust vacuum breaker inboard isolation valve,
- 2E51-F104, RCIC turbine exhaust vacuum breaker outboard isolation valve.

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These trip units are required to be operable and, thus, their surveillances completed prior to entering the Startup mode. The Startup mode had been entered on 11/19/92 at 0155 CST. The trip units had not been tested at that time. When it was determined that the surveillances had not been performed, the associated PCIS valves should have been closed and deactivated until the surveillances were completed as required by the Technical Specifications. However, this action was not taken on 11/19/92 because the shift supervisor did not realize that PCIS was affected by this event. At the time of this discovery, the trip units had already been tested. Consequently, no further immediate actions were necessary.

CAUSE OF EVENT

The cause of the surveillances not being completed as required was less than adequate procedures. The Technical Specifications require that the trip units be functionally tested prior to entering the Startup mode. However, the procedures which implement the functional testing of the trip units require that no isolation signals be in effect on the logic being tested prior to beginning the tests. In order to comply with this prerequisite, the reactor pressure must be at least 95 psig and, thus, the Startup mode must be entered prior to performing the surveillances. Consequently, the surveillances were scheduled to be performed after entering the Startup mode resulting in the missed surveillances.

The cause of the PCIS valves not being closed as required by Technical Specifications section 3.3.2, action statement c. on 11/19/92 when the missed surveillances were identified was cognitive personnel error on the part of licensed personnel. Because of the manner in which the surveillances were scheduled, the licensed shift supervisor was led to believe that the trip units provided only initiation and trip functions for the HPCI and RCIC systems. Specifically, the surveillances were scheduled to be performed after entering the Startup mode and before reaching 150 psig reactor pressure, at which point HPCI and RCIC system operability is required to be demonstrated. Consequently, he concluded that the instruments provided HPCI and/or RCIC trip and/or initiation functions and, thus, were required to be operable only when HPCI and RCIC were required to be operable. Below a reactor pressure of 150 psig, these systems are not required to be operable. Therefore, he decided that reactor pressure had to be lowered to below 150 psig. Since the HPCI and RCIC systems were already inoperable because the low pressure testing had not been completed, no further actions, such as declaring the HPCI and RCIC systems inoperable, were deemed necessary. (The Technical Specifications allow 12 hours to complete the low pressure tests from the time adequate pressure for performing the test is reached. The 12 hours had not lapsed at the time the missed surveillance was identified.)

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REPORTABILITY ANALYSIS AND SAFETY ASSESSMENT

This report is required pursuant to 10 CFR 50.73 (a)(2)(i)(B) because a condition existed that was contrary to the Technical Specifications. Specifically, Technical Specifications table 3/4.3.2-1, items 4a, 4b, 4c, 5a, 5b, and 5c require that the affected trip units be operable in the Run mode, the Startup/Hot Standby mode, and the Hot Shutdown mode. The Technical Specifications further require that operability be demonstrated by functionally testing the instruments. If the trip units are found to be inoperable, the Technical Specifications require that the associated PCIS valves be closed and deactivated until the trip units are returned to operable status. In this event, the trip units were not functionally tested before entering a plant condition in which the Technical Specifications required them to be operable. This constituted a violation of the Technical Specifications. Additionally, when the problem was discovered, the appropriate Technical Specifications action statement was not implemented. Specifically, the PCIS valves were not closed and deactivated.

Two of the trip units involved in the event did in fact provide a high reactor water level trip signal to the HPCI system. Technical Specifications table 3.3.3-1, item 3.f requires that the instruments be operable in the Run, Startup/Hot Standby, and Hot Shutdown modes when reactor pressure is greater than or equal to 150 psig. During this event, reactor pressure had been increased to 155 psig. However, the HPCI system operability test had not yet been performed and, therefore, HPCI was not operable. (As stated previously, the Technical Specifications allow 12 hours to complete the low pressure tests from the time adequate pressure for performing the test is reached. The 12 hours had not lapsed at the time the missed surveillance was identified.) Since the HPCI system was not operable at the time of the event, its attendant instrumentation was not required to be operable. Consequently, failure to perform the surveillance on these particular trip units does not constitute a condition prohibited by the Technical Specifications and, therefore, is not a reportable condition.

The other affected trip units provide isolation signals to PCIS valves which function to isolate the HPCI and RCIC turbine exhaust vacuum breaker lines, the HPCI and RCIC turbine steam supply lines, and the HPCI pump Torus suction line. Each line contains two independent and redundant PCIS valves. The appropriate PCIS valves automatically close to isolate the HPCI/RCIC turbine steam supply lines and the HPCI pump Torus suction line upon receipt of signals indicating a HPCI/RCIC steam line low pressure condition, a HPCI/RCIC steam line high flow condition, or a HPCI/RCIC equipment room high temperature condition. These conditions would be indicative of a steam line break in which case isolation of the line would be necessary to preclude loss of reactor coolant inventory and to preclude a release of radioactive materials from the primary containment into the secondary containment. These same lines are also isolated upon receipt of a signal indicating a HPCI/RCIC turbine exhaust diaphragm high pressure condition. This condition may be indicative of the turbine not turning which would result in unduly pressurizing the turbine exhaust lines, possibly resulting in pipe failure. Consequently, when such a condition occurs, the steam supply lines are

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isolated. Additionally, the appropriate PCIS valves close to isolate the HPCI/RCIC turbine exhaust vacuum breaker lines upon receipt of a signal indicating a HPCI/RCIC steam line low pressure condition coincident with a primary containment high pressure condition (The primary containment pressure instrumentation was unaffected by this event.)

In this event, the trip units were not functionally tested prior to a plant condition being entered in which they were required to be operable. Subsequent functional testing of the instruments showed that they were capable of performing their intended function throughout the event. Consequently, in the unlikely event necessitating the isolation of these lines, the instruments would have functioned as designed, initiating automatic closure of the appropriate PCIS valves.

Based on the above analysis, it is concluded that this event had no adverse impact on nuclear safety. This analysis is applicable to all power levels.

CORRECTIVE ACTIONS

Surveillance procedures 57SV-SUV-011-2S and 57SV-SUV-012-2S will be revised or new procedures developed so that the tests can be performed at any time, including prior to entering the Startup mode. With this change in effect, the Technical Specifications surveillance program should ensure that the surveillances are scheduled and performed as required by the Technical Specifications. The Unit 1 procedures (57SV-SUV-011-1S and 57SV-SUV-012-1S) are similarly deficient and, likewise, will be revised or new procedures developed. The procedure changes for Unit 1 will be made effective by 4/30/93 and the procedure changes for Unit 2 will be made effective by 8/31/93.

The licensed individual was counseled regarding the need to adequately assess the effect that a missed surveillance has on Technical Specifications compliance.

A review of other ATTS functional test surveillances will be performed to ensure that similar problems do not exist with the scheduling and/or procedural controls associated with the tests. This review will be completed by 1/29/93.

Because of the number of similar events occurring in the previous two years, as noted in the following section, a review of these events will be performed to determine if programmatic problems exist that may have contributed to the cause of these events. The review will be completed by 1/29/93. Any problems noted during the review will be corrected as needed.

ADDITIONAL INFORMATION

No systems other than those previously mentioned in this report were affected by this event.

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Previous similar events in the past two years in which personnel error or less than adequate procedures resulted in a missed surveillance were reported in the following LERs:

- 50-321/90-23, dated 1/9/91
- 50-321/91-08, dated 4/19/91
- 50-321/91-11, dated 7/9/91
- 50-321/91-12, dated 7/17/91
- 50-321/91-25, dated 11/22/91
- 50-321/91-32, dated 1/27/92
- 50-321/92-02, dated 2/5/92
- 50-321/92-08, dated 4/20/92
- 50-321/92-19, dated 8/4/92
- 50-366/90-14, dated 1/15/91
- 50-366/91-16, dated 6/28/91
- 50-366/92-06, dated 6/22/92
- 50-366/92-12, dated 8/25/92
- 50-366/92-22, dated 12/7/92
- 50-366/92-24, dated 12/11/92

Corrective actions resulting from these events included revising procedures, counseling personnel, performing reviews of specific procedures, providing guidance to the appropriate personnel, and training personnel. These corrective actions could not have prevented this event because they had no bearing on this particular surveillance activity. Also, personnel counseling by its nature cannot ensure preclusion of additional events. Due to the number of similar events, as noted earlier, a review of these events will be performed to determine if programmatic problems exist that may have contributed to the cause of these events.

No failed components either contributed to or resulted from this event.