Georgia Power Company
40 Inverness Center Parkway
Post Office Box 1295
Birmingham, Alabama 35201
Telephone 205 877-7279

J. T. Beckham, Jr.
Vice President - Nuclear
Hatch Project

Georgia Power
the southern electric system

August 30, 1996

Docket No. 50-366 HL-5232

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

Edwin I. Hatch Nuclear Plant - Unit 2
Licensee Event Report
High Pressure Coolant Injection System Temporarily
Inoperable Following Engineered Safety Feature Actuation

Gentlemen:

In accordance with the requirements of 10 CFR 50.73(a)(2)(iv) and 50.73(a)(2)(v), Georgia Power Company is submitting the enclosed Licensee Event Report (LER) concerning a high pressure coolant injection system being temporarily inoperable following an engineered safety feature actuation.

Sincerely,

J. T. Beckham, Jr.

IFL/eb

Enclosure: LER 50-366/1996-003

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

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

U.S. Nuclear Regulatory Commission, Region II
Mr. S. D. Ebneter, Regional Administrator
Mr. B. L. Holbrook, Senior Resident Inspector - Hatch

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

APPROVED OMB NO. 3150-0104
EXPIRES: 5/31/95
ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
Edwin I. Hatch Nuclear Plant - Unit 2

DOCKET NUMBER (2): 0 5 0 0 0 3 6 6

PAGE (3): 1 OF 5

TITLE (4)
High Pressure Coolant Injection System Temporarily Inoperable Following Engineered Safety Feature Actuation

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(S)
0 8	1 3	9 6	9 6	– 0 0 3	– 0 0	0 8	3 0	9 6		0 5 0 0 0
									FACILITY NAME	0 5 0 0 0

OPERATING MODE (9)	1
POWER LEVEL (10)	1 0 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR ?: (Check one or more of the following) (11)

20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
20.405(a)(1)(i)	50.36(c)(1)	X 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)	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: Steven B. Tipps, Nuclear Safety and Compliance Manager, Hatch

TELEPHONE NUMBER (include area code): AREA CODE 9 1 2 3 6 7 - 7 8 5 1

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)

	YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO

EXPECTED SUBMISSION DATE (15): MONTH | DAY | YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-space typewritten lines) (16)

On 8/13/96 at 1609 EDT, Unit 2 was in the Run mode at a power level of 2558 CMWT (100 percent rated thermal power). At that time, a technician was performing a calibration on analog transmitter trip system (ATTS) circuit cards in the High Pressure Coolant Injection (HPCI) system per surveillance procedure 57SV-SUV-012-2S, "ATTS Panel 2H11-P926 Channel FT & C." Per the procedure, the technician opened appropriate circuit links to prevent test signals from actuating valves in the HPCI system. At a later point in the procedure, as he pushed in a knob on the face of the test instrument, his finger slipped off the knob and bumped an adjacent channel selector switch. The switch changed position, which sent a trip signal to a HPCI instrument for which no protective links had been opened. The affected steamline differential pressure instrument supplies an isolation signal to the outboard valve in the steam supply line to the HPCI turbine. This valve is a Primary Containment Isolation valve. It closed per design given the signal which was applied to it. The cause of this event was a slip on the part of the technician. When his finger slipped off a knob, it struck an adjacent switch, inserting a trip signal into the isolation logic for the outboard steamline isolation valve for the HPCI system. This resulted in the HPCI system being inoperable for the length of time the valve was closed (about six minutes). The corrective actions for this event included re-opening the affected valve and restoring the HPCI system to operable status, and conducting a discussion between supervision and instrument and control technicians covering this event and the need for caution when performing this activity. These actions are complete.

PLANT AND SYSTEM IDENTIFICATION

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

DESCRIPTION OF EVENT

On 8/13/96 at 1609 EDT, Unit 2 was in the Run mode at a power level of 2558 CMWT (100 percent rated thermal power). At that time, a technician was performing a calibration on analog transmitter trip system (ATTS, EIIS Code JE) circuit cards in the High Pressure Coolant Injection (HPCI, EIIS Code BJ) system per surveillance procedure 57SV-SUV-012-2S, "ATTS Panel 2H11-P926 Channel FT & C."

This procedure provides instructions for functionally testing and calibrating trip cards in Control Room panel 2H11-P926 using test/calibration instrumentation provided in the panel for each row or "file" of trip cards. The conduct of this surveillance involves opening appropriate circuit links to prevent test signals from reaching isolation or actuation logic. Next, ATTS test/calibration instrumentation is used to apply a test signal to a selected card in the file. As the technician performing this surveillance pushed in a knob on the calibration instrument to apply a test signal to a selected card, his finger slipped past the knob and bumped the channel select switch which is mounted coaxially with the knob. This applied the test signal to a card in the file next to the one intended and tripped that card, sending a trip signal to the isolation logic down stream. The affected trip card was 2E41-N660B, which supplies a trip signal to the outboard steamline isolation valve, 2E41-F003, on a condition of HPCI system steamline high flow. When the card tripped, the isolation logic tripped and sealed in, and the valve closed as designed. This valve is a Primary Containment Isolation Valve (PCIV, EIIS Code JM).

When the technician saw the red trip light illuminate on the card adjacent to the one he intended to test, he pulled the calibration knob back out, removing the test signal. This restored the actual process signal as the input to the card, which reset the card. However, as previously noted, the trip logic to the valve had already sealed in, and the outboard HPCI steamline isolation valve went all the way closed.

The technician immediately reported the event to the licensed Shift Supervisor. After the Shift Supervisor was satisfied that the cause of the isolation was positively known, he directed that the valve be re-opened. When this action was carried out, the HPCI system was restored to operable status. The total time during which the HPCI system was inoperable was about six minutes.

CAUSE OF EVENT

The cause of this event was a physical "slip" that occurred when a technician was manipulating a piece of test/calibration instrumentation.

Normal operation of this ATTS test and calibration equipment is as follows. First, the calibration knob is pulled out which prevents a test signal from being applied. The calibration knob is then turned to the desired test current. Next, the channel select switch (mounted on the same axis with the calibration knob) is positioned so that the calibration signal can be applied to the desired trip card. Finally, the calibration knob is pressed, which applies the test signal to the selected trip card.

In this event, when the technician was pressing the calibration knob to apply the test current to the selected trip card, his finger slipped off the knob and struck the channel select switch which is located behind it on the same axis. This repositioned the channel select switch to the trip card next to the one being tested. Since the calibration current had already been dialed in, this applied a test signal to the affected card, which tripped it. When the card tripped, this sent an isolation signal to valve 2E41-F003, which closed per design.

REPORTABILITY ANALYSIS AND SAFETY ASSESSMENT

This event is reportable per 10 CFR 50.73 (a)(2)(iv) because an event occurred involving the unplanned, automatic actuation of an engineered safety feature. Specifically, the HPCI system steamline isolation valve, which is also a Primary Containment Isolation valve, closed automatically in response to a trip signal which was inadvertently applied during a test. This event is reportable also per 10 CFR 50.73 (a)(2)(v) because a single train safety system was rendered inoperable. Specifically, the HPCI system was rendered inoperable during the time its turbine steam supply line was isolated (about six minutes).

The Primary Containment Isolation System provides automatic isolation capability of Primary Containment penetrations to limit release of radioactive material in the event of an accident. The particular Primary Containment Isolation valve which closed in this event was the HPCI system outboard steamline isolation valve, 2E41-F003. This valve is designed to close automatically when conditions indicate primary system leakage into the Secondary Containment (EIIS Code NG), such as when high flow exists in the steam supply line, high temperature in the HPCI pipe penetration area, or high air temperature at the inlet to the HPCI room area cooler.

The HPCI system is designed to replace lost reactor coolant inventory in cases where a small line break occurs which does not result in full or rapid depressurization of the reactor vessel. The HPCI system injects water to the reactor vessel at a flow rate of 4250 gallons per minute (gpm) over a range of reactor pressures from approximately 160 psig to rated pressure. The HPCI system automatically starts and injects cooling water whenever a reactor vessel water level decrease or a drywell pressure increase indicates the possibility of an abnormal loss of coolant inventory.

The backup for the HPCI system is the Automatic Depressurization System together with the Residual Heat Removal/Low Pressure Coolant Injection (RHR/LPCI, EIIS Code BO) system and the Core Spray (EIIS Code BM) system. Both the LPCI and Core Spray systems contain two fully independent and redundant, 100 percent capacity loops for a total of four low pressure injection loops. If a small line break loss-of-coolant accident (LOCA) occurs and the HPCI system is not available, the Automatic Depressurization System will automatically depressurize the reactor pressure vessel to the suppression pool through safety relief valves, lowering pressure to the point where the RHR/LPCI and Core Spray systems can add cooling water to the vessel.

In this event, a trip signal was inadvertently placed in the isolation logic system for HPCI steamline isolation valve 2E41-F003. The valve closed as designed given the trip signal which was sent to it. When the valve was closed, the steam supply to the HPCI turbine was isolated. With no steam supply available, the HPCI system was inoperable. The valve was re-opened in about six minutes, restoring the HPCI system to operable status. During this time, the ADS, CS, and RHR/LPCI systems were operable and available for service had plant conditions called upon them to act. Therefore, the plant remained well within the bounds of existing transient and accident analyses at all times during this event.

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

CORRECTIVE ACTIONS

1. The affected valve was re-opened and the HPCI system was returned to operable status. This action is complete.

2. Supervision discussed this event with instrument and control technicians stressing the need for caution when performing this activity. This action is complete.

ADDITIONAL INFORMATION

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

2. Failed Component Information: No failed components were identified in connection with this event.

3. Previous Similar Events: No events have been reported in the last two years in which a slip occurring while manipulating plant equipment resulted in any unplanned actuations of engineered safety features or any safety systems being inoperable.