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J. T. Beckham, Jr.  
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November 13, 1995

Docket Nos. 50-366

HL-5070

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D. C. 20555-0001

Edwin I. Hatch Nuclear Plant - Unit 2  
Licensee Event Report  
Personnel Error Results in  
Automatic Initiation of the Emergency Diesel Generators

Gentlemen:

In accordance with the requirements of 10 CFR 50.73 (a)(2)(iv), Georgia Power Company is submitting the enclosed Licensee Event Report (LER) concerning an automatic initiation of the emergency diesel generators which resulted from personnel error.

Sincerely,

J. T. Beckham, Jr.

JKB/ld

Enclosure: LER 50-366/1995-005

cc: Georgia Power Company  
Mr. H. L. Sumner, Nuclear Plant General Manager  
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. Ebnetter, Regional Administrator  
Mr. B. L. Holbrook, Senior Resident Inspector - Hatch

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LICENSEE EVENT REPORT (LER)

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.

FACILITY NAME (1)

Edwin I. Hatch Nuclear Plant - Unit 2

DOCKET NUMBER (2)

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PAGE (3)

TITLE (4)

Personnel Error Results in Automatic Initiation of the Emergency Diesel Generators

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)	
1	0	20	9	5	-	0	1	1	Plant Hatch, Unit 1	0   5   0   0   0   3   2   1	
1	0	20	9	5	-	0	1	1	Plant Hatch, Unit 1	0   5   0   0   0   3   2   1	

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR ? : (Check one or more of the following) (11)														
N	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 20.405(a)(1)(iii)	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 20.405(a)(1)(v)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(vii)(A)	<input type="checkbox"/> 50.73(a)(2)(vii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)	<input type="checkbox"/> 73.71(b)	<input type="checkbox"/> 73.71(c)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
POWER LEVEL (10)	0	0	0												

LICENSEE CONTACT FOR THIS LER (12)

NAME	STEVEN B. TIPS, Nuclear Safety & Compliance Manager	TELEPHONE NUMBER (include area code)	9   1   2   3   6   7   -   7   8   5   1
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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)	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-space typewritten lines) (16)

On 10/20/95, at 1558 EDT, Unit 2 was in a refueling outage with no fuel in the reactor vessel. At that time, the 2A and 2C Emergency Diesel Generators (EDG) automatically started on a simulated Unit 2 Loss of Coolant Accident (LOCA) signal. Upon initiation, EDGs 2A and 2C started and operated as designed. The 1B EDG was operating at the time in the test mode and automatically transferred out of the test mode and operated in standby. Additionally, the Main Control Room Environmental Control (MCREC) system automatically transferred to the pressurization mode. At the time of the event, a nonlicensed engineer was performing a Technical Specification required logic system functional test (LSFT) on the Core Spray (CS) system. Following the initiation, the test was terminated. At 1601 EDT, EDGs 2A and 2C were secured and placed in standby. The MCREC system was also returned to the normal mode of operation. The cause of the event was personnel error on the part of the nonlicensed engineer. The LSFT was incorrectly performed in that the initiation logic for the EDGs and MCREC pressurization mode was not overridden as was intended in the test. When a LOCA signal was simulated in the CS system logic in accordance with the test procedure, these systems initiated as well as a simulated CS system initiation. The breakers for the CS pumps were racked to test and therefore did not actually start. Corrective actions included counseling, retraining the involved individual regarding self-verification techniques, and training other engineers responsible for performing LSFTs on this event.

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

PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor

Energy Industry Identification System Codes are identified in the text as (EIIS Code XX).

DESCRIPTION OF EVENT

On 10/20/95, at 1558 EDT, Unit 2 was in a refueling outage with no fuel in the reactor vessel. At that time, the 2A and 2C Emergency Diesel Generators (EDG, EIIS Code EK) automatically started on a false Unit 2 Loss of Coolant Accident (LOCA) signal. The 1B EDG was operating at the time in the test mode undergoing surveillance testing and automatically transferred out of the test mode and operated in standby. Additionally, the Main Control Room Environmental Control (MCREC, EIIS Code VI) system automatically transferred to the pressurization mode. At the time of the event, a nonlicensed engineer was performing a Technical Specification required logic system functional test (LSFT) on the Core Spray (CS, EIIS Code BM) system in accordance with procedure 42SV-E21-001-2S, "Core Spray Logic System Functional Test." Per the procedure, a jumper is placed in the Core Spray system initiation logic to simulate a LOCA signal and initiate the Core Spray system. The pump motor supply breakers are racked out to prevent actual start of the pumps. The EDGs and the MCREC pressurization mode are also initiated from the same initiation logic. In order to prevent initiation of the EDGs and the MCREC pressurization mode, the procedure requires that test switch 2E21-S14A be placed or confirm to be placed in the "normal" position. In this position and coincident with the Core Spray system test jack J1 in place, the switch deactivates the initiation signal to the EDGs and the MCREC pressurization mode. However, when the step was read aloud to the licensed operator performing the switch manipulation, the engineer incorrectly stated the instructions and directed the operator to place the switch in the "trip" position as opposed to the "normal" position. Consequently, when the jumper was placed to initiate the Core Spray system, the EDG and MCREC pressurization mode initiation logic was still active and these systems automatically started. The Unit 2 "A" Turbine Building chiller also tripped as designed as a result of the Unit 2 simulated LOCA signal. The EDG initiation logic initiates automatic closure of Unit 2 Turbine Building Plant Service Water (PSW, EIIS Code BS) system isolation valves 2P41-F316A, B, C, and D. These valves therefore closed as a result of the inadvertent initiation of the EDGs.

Upon initiation, EDGs 2A and 2C started and operated as designed. As stated previously, the 1B EDG transferred out of test and operated in standby. The MCREC system also transferred to the pressurization mode as designed. Following the initiation, the engineer was directed to terminate the test. Consequently, the jumper which simulated the Unit 2 LOCA signal was removed and the logic was restored to its normal configuration. At 1601 EDT, EDGs 2A and 2C were secured and placed in standby. The 1B EDG was manually transferred back to the test mode and the surveillance was

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subsequently completed. At 1612 EDT, valves 2P41-F316A, B, C, and D were reopened. Additionally, the MCREC system was returned to the normal mode of operation. Also, the Turbine Building chiller was restored to service.

CAUSE OF EVENT

The cause of the event was cognitive personnel error on the part of nonlicensed personnel. A nonlicensed individual conducting the surveillance incorrectly performed the test procedure. Specifically, the procedure requires placing switch 2E21-S14A in the "normal" position to deactivate the Division I ESF LOCA initiation logic for the EDGs and the MCREC pressurization mode. However, the engineer incorrectly implemented the step and as a result requested the operator to place the switch in the "trip" position. With the switch in the "trip" position, the initiation logic for the EDGs and the MCREC pressurization mode remains active. Consequently, when the jumper was installed to simulate a LOCA signal, the EDGs and the MCREC pressurization mode as well as the Core Spray System automatically started.

REPORTABILITY ANALYSIS AND SAFETY ASSESSMENT

This report is required pursuant to 10 CFR 50.73(a)(2)(iv) because an engineered safety feature was inadvertently initiated. Specifically, an automatic, unplanned initiation of the Emergency Diesel Generators occurred during performance of a Technical Specification surveillance procedure.

EDGs 2A, 1B, and 2C are designed to automatically start in the event of a Unit 2 LOCA and run unloaded in the event of a Loss of Offsite Power (LOSP) accompanying the LOCA. In the unlikely event of an LOSP, voltage monitoring instrumentation associated with the Unit 2 emergency buses (EIIS Code EB) would generate a signal initiating closure of the EDG output breakers among other things, tying the EDGs to the Unit 2 emergency buses. The MCREC system is a unit-common system designed to maintain habitability of the Unit 1 and Unit 2 zones of the Main Control Room (EIIS Code NA) in the event of a LOCA by pressurizing the Main Control Room with filtered air, minimizing the inleakage of radioactive material. The Turbine Building PSW isolation valves are designed to close in the event of a LOCA, isolating nonessential loads from the PSW system, ensuring that essential loads are adequately cooled.

In this event, the EDGs 2A and 2C automatically started and operated as designed. An operability test was being conducted on EDG 1B; therefore EDG 1B was already running. The Unit 2 Turbine Building PSW isolation valves isolated during the event as designed. Also, the MCREC system automatically transferred to the pressurization mode as designed. Had an event occurred requiring operation of these systems, they would have been able to perform their intended safety function.



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

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

CORRECTIVE ACTIONS

The involved individual was counseled regarding the need for attention to detail.

The involved individual was retrained on self-verification and communication techniques and was retrained in the performance of LSFTs by assisting in the performance of several LSFTs.

The involved individual reviewed the event with other engineers who are responsible for performing LSFTs.

ADDITIONAL INFORMATION

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

Three similar events have occurred in the past two years in which unplanned automatic actuations of engineered safety features were caused by cognitive personnel error. These events were addressed in the following LERs:

- 50-321/94-02, dated 4/19/94
- 50-321/94-12, dated 11/14/94, and
- 50-366/95-01, dated 5/4/95.

The corrective actions associated with these events included disciplinary actions, retraining, and instituting the use of double verification in the installation of jumpers. These corrective actions could not have prevented this event because they did not involve the individual involved in this event and the cause of this event did not involve the placement of jumpers.

No failed components resulted from or contributed to this event.