NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
EDWIN I. HATCH, UNIT I	0 5 0 0 0 3 2 1	1 OF 0 3

TITLE (4)

UNPLANNED REACTOR SCRAM

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)
0 6	2 7	8 5	8 5	—	0 2 6	—	0 0	0 7	2 6	8 5	EDWIN I. HATCH, UNIT 2	0 5 0 0 0 3 6 6
												0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)					
POWER LEVEL (10)	0 6 4		20.402(b)		20.405(c)	X	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)		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
	AREA CODE
Steven B. Tipps, Superintendent of Regulatory Compliance	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	
				N							

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

On 06/27/85 at approximately 1320 CDT, with the unit operating at 1571 MWt (approximately 64% power), and while plant personnel were preparing to increase load on the unit, the "1C" start-up transformer (SUT) shorted to ground causing loss of power to the "A" and "B" 4160 volt busses. This resulted in loss of power to the "A" and "B" reactor recirculation pumps. While plant personnel were attempting to manually scram the unit (required by Tech. Specs. section 3.6.J.1), an automatic scram from the Neutron Monitoring system (i.e., loss of recirculation pumps resulted in an APRM Flow Bias scram signal) was received.

The event resulted from non-licensed plant personnel closing the incorrect fire protection deluge valve diaphragm chamber water supply valve. This caused the fire protection water system to actuate and spray the "1C" SUT, resulting in a phase-to-ground fault trip on the "1C" SUT.

The fire protection deluge valve diaphragm chamber water supply valves were labeled correctly and the misaligned deluge spray nozzle was realigned. Power was restored to the "1C" SUT and the "A" and "B" 4160 volt busses. Both recirculation pumps were returned to service on 06/28/85 at approximately 1320 CDT.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
EDWIN I. HATCH, UNIT I	0 5 0 0 0 3 2 1	8 5	— 0 2 6	— 0 0	0 2 OF 0 3

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

This 30 day LER is required by 10CFR50.73(a)(2)(iv) due to an unplanned Reactor Scram.

On 06/27/85 at approximately 1320 CDT, with the unit operating at 1571 MWt (approximately 64% power), and while plant personnel were preparing to increase load on the unit, the "1C" start-up transformer (SUT) shorted to ground causing loss of power to the "A" and "B" 4160 volt busses. This resulted in loss of power to the "A" and "B" reactor recirculation pumps. While plant personnel were attempting to manually scram the unit (required by Tech. Specs. section 3.6.J.1), an automatic scram from the Neutron Monitoring system (i.e., loss of recirculation pumps resulted in an APRM Flow Bias scram signal) was received.

The transient proceeded smoothly. Reactor water level decreased to 0 inches (reference instrument zero) and a Group 2 primary containment isolation was received; however, only the outboard isolation valves closed. Reactor water level was quickly recovered to +58 inches (reference instrument zero) via the "A" feedwater pump. Reactor pressure dropped to approximately 920 psig where the EHC system controlled pressure with the bypass valves. Reactor water level then began to decrease, and HPCI was started and placed in Full Flow Test to help control level and pressure. RCIC remained operable and in the normal standby configuration. The SRVs did not operate during the scram since reactor pressure reached 957 psig which is below the setpoints of the SRVs.

Following an investigation, plant personnel determined that the inboard Group 2 isolation valves failed to close due to jumpers being installed during performance of the "REACTOR WATER SHROUD LEVEL INDICATOR INSTRUMENT FT&C" procedure (HNP-1-3170). This procedure was in progress at the time of the scram. The installation of the jumpers and the resulting inability of the valves to close was the desired result during performance of the test.

The sequence of events which led to the scram were as follows:

1. On 06/27/85 at approximately 1245 CDT, plant personnel were attempting to isolate the fire protection water system for the "1A" and "1B" unit auxiliary transformers (UAT). This was to be done so that maintenance personnel could restore and return the fire protection water system for the "1B" UAT.

2. Non-licensed plant personnel intended to close the valve which supplies water to the diaphragm chamber for the deluge valve for the "1A" and "1B" UAT; however, due to mislabeled valves, plant personnel inadvertently closed the valve which supplies water to the main diaphragm chamber. This main diaphragm chamber controls the deluge valves for the following fire protection water systems : "1C" SUT; "2C" SUT; Main Transformer; and the "1A" and "1B" UAT.

3. Approximately 30 minutes after the wrong valve was closed, the pressure in the isolated water supply decreased. This decrease in pressure was caused by the bleed-off of pressure on the the pilot air supply for the deluge valves for the "1A" and "1B" UAT. The air supply had been isolated properly during the activities described in number 1.

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

4. This decrease in pressure of the water supply allowed the clappers to open on the deluge valves for the "1C" SUT and the "1A" UAT. This opening of the clappers activated the fire water protection deluge systems for these two transformers.

5. Due to a slightly misaligned deluge spray nozzle on the "1C" SUT and a strong cross-wind, the spray from this nozzle was directed onto the primary center phase insulator for the "1C" SUT.

6. This resulted in a phase-to-ground fault trip on the "1C" SUT and caused the loss of the "A" and "B" 4160 volt busses. This caused the "A" and "B" reactor recirculation pumps to trip.

7. The "1C" SUT and the "2C" SUT are tied together thru common points in the switchyard. When the "1C" SUT tripped, the protective action in the switchyard tripped the "2C" SUT also. This had no effect on Unit 2 operation since the transformer was supplying no load at the time. However, Unit 2 entered an LCO and the following were performed per Tech. Specs. section 3.8.1.1., ACTION a: breaker alignments were verified as required by Tech. Specs. section 4.8.1.1.1. a. and the Unit's diesel generator were verified to quick start per Tech. Specs. section 4.8.1.1.2.a.4.

The root cause of this event was the personnel error described in number 2.

Corrective actions consisted of:

1. Plant Supervision talked to the individual that was responsible for the incorrect valve isolation. He was informed not to operate any valve that was not clearly labeled.

2. Plant operations personnel were directed not to perform a clearance on unlabeled valves. If they encounter that situation, they are to stop and contact supervision for further evaluation.

3. The water supply valves for the fire protection deluge valve's diaphragm chambers were identified and marked correctly.

4. The deluge spray nozzle for the "1C" SUT was realigned.

5. The remaining spray nozzles for the "1C" SUT were checked for proper alignment.

6. HNP-1-3170 was completed and the jumpers which had prevented the Group 2 inboard isolation were removed as required by the procedure.

7. Power was restored to the "1C" SUT and the "A" and "B" 4160 volt busses. Both recirculation pumps were returned to service on 06/28/85, at 1320 CDT.

No adverse safety consequences resulted from this event. The health and safety of the public were not affected by this event. There are no known previous similar events.

Georgia Power Company
Post Office Box 439
Baxley, Georgia 31513
Telephone 912 367-7781
912 537-9444

Georgia Power

Edwin I. Hatch Nuclear Plant

July 26, 1986
LR-MRG-074-0785

PLANT E. I. HATCH
Licensee Event Report
Docket No. 50-366

United States Nuclear Regulatory Commission
Document Control Desk
Washington, D. C. 20555

Attached is Licensee Event Report No. 50-321/1985-026. This report is required by 10CFR 50.73(a)(2)(iv).

H. C. Nix
General Manager

HCN/SBT/vlz

xc: R. J. Kelly
R. E. Conway
J. T. Beckham, Jr.
P. D. Rice
K. M. Gillespie
D. R. Altman
Superintendent of Regulatory Compliance
R. D. Baker
Control Room
Document Control

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