

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) EDWIN I. HATCH, UNIT I	DOCKET NUMBER (2) 0 5 0 0 0 3 2 1	PAGE (3) 1 OF 0 2
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TITLE (4)
Reactor Water Cleanup System Isolations

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 1 0	5 8 5	8 5		0 0 1		0 1 2	7 8	5			0 5 0 0 0

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

OPERATING MODE (9) 4	<input type="checkbox"/> 20.402(b)	<input checked="" type="checkbox"/> 20.406(c)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)
	<input type="checkbox"/> 20.406(a)(1)(i)	<input type="checkbox"/> 50.38(e)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)
	<input type="checkbox"/> 20.406(a)(1)(ii)	<input type="checkbox"/> 50.38(e)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	<input type="checkbox"/> 20.406(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	
	<input type="checkbox"/> 20.406(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	
	<input type="checkbox"/> 20.406(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME T. L. Elton, Acting Superintendent of Regulatory Compliance	TELEPHONE NUMBER AREA CODE: 9 1 1 2 NUMBER: 3 6 1 7 1 7 8 5 1 1
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

On 01/05/85, and on 01/10/85, the Reactor Water Cleanup (RWCU) system automatically isolated due to a high differential flow trip signal. The outboard isolation valve (G31-F004) closed, and the running RWCU pump (G31-C001B) tripped. The inboard isolation valve (G31-F001) did not shut as required by Tech. Specs. section 3.7.D.1 and Table 3.7.1.

It was determined that the trips were caused by air trapped in the sensing lines of the system inlet flow transmitter (G31-N036) and a leaking relief valve on the regenerative heat exchanger (G31-B001).

The relief valve was replaced and the transmitter was vented. The transmitter's proper operation was verified by observing its indicator, G31-R615, and it was returned to service.

An engineering evaluation was conducted, and it was determined that the RWCU system isolation logic would not allow a high differential flow trip to isolate both G31-F001 and G31-F004 unless both RWCU pumps were running. There are, however, other signals which would have isolated both RWCU isolation valves regardless of pump status. They are: low reactor vessel water level scram, high RWCU equipment room ambient temperature, and high differential temperature across the RWCU equipment room ventilation ducts.

A DCR has been implemented which changed the isolation logic circuitry to allow a high differential flow trip to isolate both G31-F001 and G31-F004 with either, both or neither RWCU pump running. The changes were satisfactorily tested per the DCR functional test, and the system was returned to service on 01/12/85.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		- 0 0 1	- 0 0 0	2	OF	2

TEXT (If more space is required, use additional NRC Form 368A's) (17)

This 30 day LER is required by 10CFR50.73(a)(2)(iv) because these events were automatic actuations of an ESF. It is also required by 10CFR50.73(a)(2)(i) because evaluation of these events has shown that the unit has been operating contrary to the provisions of Tech. Specs. section 3.7.D.1, and Table 3.7.1.

On 01/05/85, at approximately 1824 CST with the reactor mode switch in the shutdown position and the unit shutdown, operations personnel were attempting to put the Reactor Water Cleanup (RWCU) demineralizers in service with RWCU pump G31-C001B running and G31-C001A secured. At this time, the Cleanup System Leak alarm annunciated, the RWCU outboard isolation valve (G31-F004) closed and the "B" RWCU pump (G31-C001B) tripped. The inboard isolation valve (G31-F001) failed to close.

On 01/10/85, at approximately 1340 CST with the reactor mode switch in the startup and hot standby position and the unit at less than 1% thermal power, with G31-C001B running and G31-C001A secured, the Cleanup System Leak alarm again annunciated, G31-F004 closed and the "B" RWCU pump tripped. The inboard isolation valve (G31-F001) failed to close. G31-F001 was declared inoperable. The RWCU system was removed from service, and G31-F001 and G31-F004 were closed as required by Tech. Specs. Table 3.2.1, reference no. 8, note C.

No actual or potential safety consequences resulted from these events nor was the health and safety of the public affected.

These are repetitive events as previously reported in LER 50-321/1984-29.

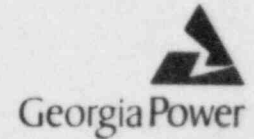
Investigation of the event on 01/10/85 revealed that a relief valve on the regenerative heat exchanger (G31-B001) was leaking, and that the cleanup system inlet flow transmitter (G31-N036) had air trapped in its sensing lines which was causing an erroneous signal to be sent to the differential flow network.

The relief valve was replaced and the transmitter was vented. The transmitter's proper operation was verified by observing its indicator, G31-R615, and it was returned to service.

An engineering investigation was conducted to determine why G31-F001 had not shut when the system isolated. It was determined that the RWCU system isolation logic was such that it would not allow a high differential flow trip to isolate both G31-F001 and G31-F004 unless both RWCU pumps were running. With G31-C001A running, G31-F001 would shut, G31-F004 would remain open. With G31-C001B running, G31-F004 would shut, G31-F001 would remain open. With no pumps running, neither valve would shut. There are, however, other signals which would have isolated both RWCU isolation valves regardless of pump status. They are: low reactor vessel water level scram, high RWCU equipment room ambient temperature, and high differential temperature across the RWCU equipment room ventilation ducts.

A DCR has been implemented which changed the isolation logic circuitry to allow a high differential flow trip to isolate both G31-F001 and G31-F004 with either, both or neither RWCU pump running. The changes were satisfactorily tested per the DCR functional test, and the system was returned to service on 01/12/85.

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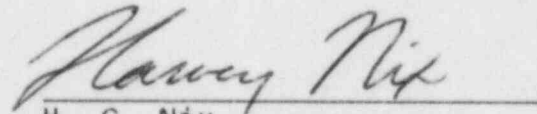
Edwin I. Hatch Nuclear Plant

January 27, 1985
GM-84-041

PLANT E. I. HATCH
Licensee Event Report
Docket No. 50-321

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

Attached is Licensee Event Report No. 50-321/1985-001. This report is required by 10CFR 50.73(a)(2)(i), and 10CFR 50.73(a)(2)(iv).



H. C. Nix
General Manager

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