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 1	0 5 0 0 0 3 2 1	1 OF 0 2

TITLE (4)
HPCI CONTROL FAILURE

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 0	8 4	8 4	— 0 1 1 —	0	0 7	1 9	8 4		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	4	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 0 0	20.402(b)	20.405(c)	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	TELEPHONE NUMBER (AREA CODE)
T. L. Elton, Acting 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
X	B G	6 5	W 2 9 0	Y					
X	B G	1 2	T 1 4 7	Y					

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 06-20-84, after repair of valve 1E41-F001 the HPCI turbine was unsuccessfully tested per the "HPCI PUMP OPERABILITY" procedure (HNP-1-3303). After an investigation it was determined that this event was caused by emulsification of HPCI turbine lubricating oil (when water entered the lubricating system), and a broken-ball on the tappet and ball assembly part of the mechanical-hydraulic overspeed trip mechanism. HPCI was satisfactorily functionally tested per HNP-1-3303 and returned to service on 06-23-84.

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EDWIN I. HATCH, UNIT 1	0 5 0 0 0 3 2 1	8 4	— 0 1 1	— 0	0 2 OF 0 2

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

When the "OIL SAMPLING PROGRAM" procedure (HNP-7611) was performed on 6-12-84 it was determined that HPCI turbine lubricating oil contained 1.3% water. The maximum procedural permissable water content of the lubricating oil is 0.5%. Consequently, HPCI was declared inoperable, and an LCO was established per Tech. Specs section 3.5.D.2.

After an investigation, the cause of water in the HPCI turbine lubricating oil was found to be caused by steam cuts in the seat of HPCI turbine steam supply valve 1E41-F001. The steam cuts allowed steam to enter the HPCI turbine wheel case, exit the turbine shaft seals, and impinge upon a section of displaced insulation. The steam condensed to water after it contacted the insulation. The water then flowed down the section of insulation and collected on the bearing cap dust collar, and leaked into the turbine bearing oil sump. The water drained into the HPCI turbine's lubricating oil reservoir, and was distributed throughout the lubricating system when the turbine was run.

There were no actual or potential safety consequences of this non-repetitive event. An LCO was established on 6-12-84 and the ADS actuation logic, the RCIC system, the RHR system LPCI mode, and the CS system were demonstrated to be operable as required by Tech. Specs. section 4.5.D.2. The RCIC system and ADS logic were demonstrated to be operable daily there after per Tech. Specs. section 4.5.D.2. This event had no impact upon any other systems in Unit 1, or Unit 2.

On 06-20-84, subsequent to repair of the HPCI turbine steam supply valve 1E41-F001 and returning of the insulation to the correct configuration (done to prevent water from leaking into the turbine bearing oil sump), plant personnel performed the "HPCI PUMP OPERABILITY" procedure (HNP-1-3303). The HPCI pump operability surveillance was unsatisfactory because the turbine isolated on high steam line differential pressure. After further investigation it was determined that the electric governor remote (EG-R) actuator (which controls the governor valve) contained emulsified oil which caused the governor valve to operate sluggishly. Additionally, the ball on the tappet and ball assembly, part of the mechanical-hydraulic overspeed trip mechanism (which closes the turbine stop valve on overspeed), was determined to be broken. These two problems contributed to the high steam line differential pressure isolation. This is reportable per the requirements of 10CFR 50.73(a)(2)(v)(D).

Repairs consisted of replacing the HPCI turbine lubricating oil on 06-12-84, the electric governor-remote (EG-R) actuator assembly, the EG-R remote servo assembly, and the ball and tappet assembly. The HPCI turbine was satisfactorily functionally tested per the "HPCI OVERSPEED TEST" procedure (HNP-1-5289), and the "HPCI PUMP OPERABILITY" procedure (HNP-1-3303) and returned to service on 06-23-84. The LCO was terminated on 06-23-84 at approximately 1935 CST.

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Georgia Power

Edwin I. Hatch Nuclear Plant

July 19, 1984
GM-84-603

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. 50-321/1984-011. This report is required by 10CFR 50.73(a)(2)(v).

H. C. Nix
General Manager

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HCN/TLE/vlt

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