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 5

TITLE (4)
Failure of valve to pass Local Leak Rate Test

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 2	2 4	8 4	8 4	— 0 0 2	— 0 0	0 3	2 3	8 4		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	4
POWER LEVEL (10)	0 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)		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)	X	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
Steven B. Tipps, Superintendent of Regulatory Compliance	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	
X	B M	F C V	W 0 3 0	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 02-24-84, while preparing to close out a Design Change Request, a plant engineer determined that records for the previous Local Leak Rate Test (LLRT) on the "A" loop core spray minimum flow valve (1E21-F031A) were not available. Consequently the "PRIMARY CONTAINMENT PERIODIC TYPE B AND TYPE C LEAKAGE TESTS" procedure (HNP-1-3952) was performed on 02-24-84, for 1E21-F031A. This test failed due to excess leakage.

Investigation determined that the valve's wedge was cracked across the seating surface to the extent that the wedge could not be repaired. Minimum flow valve 1E21-F031A was removed from its line, and it was replaced with a similar valve from Unit 2.

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

On 02/24/84, with the unit in cold shutdown for repairs to the main turbine, a plant engineer was reviewing records in order to close out a Design Change Request (DCR). During this review, he could not determine the leakage rate which resulted from the previous Local Leak Rate Test (LLRT) of the "A" loop core spray minimum flow valve (1E21-F031A). Consequently, the "PRIMARY CONTAINMENT PERIODIC TYPE B AND TYPE C LEAKAGE TESTS" surveillance procedure (HNP-1-3952) was performed on 02/24/84, for 1E21-F031A. During this test, the valve's test boundary could not be pressurized. Thus, it was assumed that the .60 L_a limit of Tech. Specs. section 4.7.A.2.g could not be met.

Following is the sequence of events leading to this event:

Plant records indicate that the valve successfully passed an LLRT on 05/17/81. When the valve was next tested on 10/18/82, it failed. As a result of this failed LLRT, a DCR (same DCR as in the first paragraph) was performed on the valve. This DCR replaced the valve's chromium seating surface with a stellite seating surface. After performance of the DCR, the valve was successfully tested, and the implementing Maintenance Request was closed out. The data package which documented the test results can not be found. Additionally, the test results were never recorded in the LLRT log. The actual leakage rate of the valve after the design change was unknown prior to 02/24/84.

This non-repetitive event (non-repetitive for this valve; however, other valves have failed LLRTs as last reported on LER 50-321/1982-095) had no impact upon a. other system in Unit 1, or Unit 2.

The core spray minimum flow line runs to the torus where it ends beneath the water level. The 1E21-F031A valve is normally open when core spray is not operating. The valve was in the open position when the successful Integrated Leak Rate Test (ILRT) was performed on 02/02/83 which indicates that primary containment integrity is maintained even with the valve in the open position. Even with a failed core spray minimum flow valve, no safety consequence occurred. There is no other valve in the core spray minimum flow line which serves a containment isolation function. There is, however, a check valve (1E21-F036A) in this line between the 1E21-F031A valve and the torus. In order for a safety consequence to have occurred, a LOCA and a minimum flow line break would have had to occur.

The reason that the previous test records could not be found is unknown. The test results were not recorded in the LLRT log due to personnel error.

After an investigation, the "A" loop core spray minimum flow valve (E21-F031A) was disassembled and examined. The examination showed that the valve's wedge was cracked across its seating surface to the extent that it could not be repaired; this cracking of the seating surface is the reason the LLRT would not pass. The cause of the cracked seating surface is not known.

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

A design change request was implemented which replaced 1E21-F031A with valve 2E21-F031A from the Unit 2 core spray minimum flow line. After installation in the Unit 1 core spray system, the valve was satisfactorily functionally tested per HNP-1-3952. The valve was then tested for operability per the "CORE SPRAY VALVE OPERABILITY" procedure (HNP-1-3203), and declared operable on 03/05/84.

The list of LLRTs which were required to be performed during the 1983 outage was compared to the actual test results to confirm that all required tests had been performed. The review indicated that the failure to ensure that the 1E21-F031A LLRT was performed was an isolated incident.

As an additional measure, the importance of logging all LLRTs was stressed to the person who is responsible for the LLRT program.

IDENTIFICATION OF EACH FAILED COMPONENT

MASTER PARTS LIST NUMBER	MANUFACTURER	MODEL NUMBER
1E21-F031A	Walworth Company	5-5206-53-030-05A

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

Georgia Power

Edwin I. Hatch Nuclear Plant

March 23, 1984
GM-84-244

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. 50-321/1984-02. This report is required by 10CFR50.73(A)(2)(ii) and 10CFR50.73(A)(2)(V)(c).

H. C. Nix
General Manager

HCN/SBT/djs

xc: R. J. Kelly
R. E. Conway
J. T. Beckham, Jr.
P. D. Rice
K. M. Gillespie
S. B. Tipps
R. D. Baker
Control Room
Document Control

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