

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) EDWIN I. HATCH, UNIT 2										DOCKET NUMBER (2) 0 5 0 0 0 3 6 6 1				PAGE (3) 1 OF 4											
TITLE (4) Fracture in vent header in torus																									
EVENT DATE (5)			LER NUMBER (8)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)																
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES E. I. HATCH, UNIT 1				DOCKET NUMBER(S) 0 5 0 0 0 3 2 1												
0	2	0	3	8	4	8	4	0	0	1	0	2	0	4	2	6	8	4	0	5	0	0	0		
OPERATING MODE (9) 5		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(s)(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)(ix)																	
LICENSEE CONTACT FOR THIS LER (12)																									
NAME Steven B. Tipps, Superintendent of Regulatory Compliance										TELEPHONE NUMBER 9 1 1 2 3 6 7 1 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	BIS	PIM		X	9 9 9	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 02/03/84, during an inspection of the torus interior on Unit 2, plant personnel detected a fracture in a 54 inch vent header in bay 5. The total size of the fracture was approximately 26 square inches. The cause of this event is a brittle fracture of the vent header material. This fracture resulted from the vent header material being subjected to a temperature below its nil ductility temperature (NDT). Since a nitrogen inerting system line is located directly above the vent header in the vicinity of the crack line, it is speculated that the inerting system was the cause of the low temperature.

The vent header will be repaired prior to startup. Additionally, procedure changes and/or system modifications will be made, as necessary, to improve the operation of the nitrogen inerting system.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
EDWIN I. HATCH, UNIT 2	0500036684	00	1	0	2	02 OF 04

TEXT (If more space is required, use additional NRC Form 365A's) (17)

REQUIREMENT FOR REPORT:

This report is required by 10 CFR 50.73 (a)(2)(ii)(A)

PLANT CONDITIONS AT THE TIME OF THE EVENT(S):

On 02/03/84, at approximately 11:00 CST, Unit 2 was in cold shutdown for the recirculation pipe replacement outage.

DETAILED DESCRIPTION OF THE EVENT(S):

On 02/03/84, during an inspection of Unit 2's torus interior, plant personnel detected a fracture in a 54 inch vent header in bay 5. The total size of the fracture was calculated to be approximately 26 square inches.

SUMMARY ASSESSMENT OF ACTUAL AND POTENTIAL SAFETY CONSEQUENCES AND IMPLICATIONS:

An analysis by General Electric showed that if the size of the fracture (i.e., approximately 26 square inches) had remained the same, there would have been sufficient steam condensing capability had a Loss of Coolant Accident (LOCA) occurred. No analysis was performed to determine the consequences had the fracture size been greater.

STATUS OF REDUNDANT OR BACKUP SUBSYSTEMS AND/OR SYSTEMS:

There is no backup system for the vent header.

JUSTIFICATION FOR CONTINUED OPERATION:

The vent header will be repaired satisfactorily prior to unit startup.

IF REPETITIVE:NUMBER OF PREVIOUS LER:

This is a non-repetitive event.

WHY CORRECTIVE ACTION DID NOT PREVENT RECURRENCE:

N/A

IMPACT TO OTHER SYSTEMS AND/OR UNIT:

This event did not affect other systems on Unit 2.

Georgia Power Company management ordered Unit 1 to be placed in cold shutdown as a precautionary measure. The Unit 1 torus was inspected for cracks and none were found. Unit 1 was then returned to normal operation.

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EDWIN I. HATCH, UNIT 2	0 5 0 0 0 3 6 6 8 4	—	0 0 1	— 0 2	0 3	OF 0 4

TEXT (If more space is required, use additional NRC Form 365A's) (17)

CAUSE(S) OF THE EVENTS(S):

The cause of this event is a brittle fracture of the vent header material. An examination of metal samples of the 54 inch vent header indicated that the fracture was caused by the vent header material being subjected to a temperature below its nil ductility temperature (NDT). Since a nitrogen inerting system line is located directly above the vent header in the vicinity of the crack line, it was determined that the inerting system was the cause of the low temperature to which the vent header was subjected.

The plant has experienced set-point drift and maintenance problems with the nitrogen inerting system's low temperature interlock switch (2T48-N075) for the nitrogen discharge isolation valve (2T48-F047). A specific instance, which contributed to the low temperature problem, occurred on August 9, 1983. On that date, the nitrogen inerting system's low temperature interlock switch (2T48-N075) for the nitrogen discharge isolation valve (2T48-F047) was detected as being inoperable due to its wires being lifted. The date when the wires were lifted is unknown. However, on July 13, 1983, during a primary containment inertion, a decrease of 12 degrees Fahrenheit in the torus air temperature was noted. With the wires lifted, the isolation valve would not have isolated the nitrogen supply at the 0 degree Fahrenheit setpoint.

IMMEDIATE CORRECTIVE ACTION(S):

The vent header will be repaired prior to startup from the current outage.

SUPPLEMENTAL CORRECTIVE ACTION(S):

Procedure changes have been made on Unit 1 to improve the procedural steps involved with inerting the containment. The applicable Unit 2 procedures will be revised similarly prior to Unit 2 being inerted.

A Design Change Request has been initiated to re-route the existing nitrogen inerting system's piping, associated circuitry, and instrumentation. This piping is presently located directly above the vent header; this change will move the piping such that it will no longer be above the vent header.

Also, due to poor maintenance history of the temperature switch, a Design Change Request was implemented providing a redundant isolation on low temperature.

SCHEDULED (FUTURE) CORRECTIVE ACTION(S):

N/A

ACTION(S) TO PREVENT RECURRENCE (IF DIFFERENT FROM CORRECTIVE ACTIONS):

The supplemental corrective actions should be sufficient to preclude recurrence of this event.

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

IDENTIFICATION OF EACH FAILED COMPONENT

MASTER PARTS LIST NUMBER

INSTALLED BY

MODEL NUMBER

2T23	CHICAGO BRIDGE AND IRON	NONE
(Vent Header)		

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




Edwin I. Hatch Nuclear Plant

April 26, 1984
GM-84-361

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. 50-366/1984-01, Rev. 2. This report is required by 10 CFR 50.73(a)(2)(ii)(A).


H. C. Nix
General Manager

HCN/SBT/vlt

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