

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) <b>JAMES A. FITZPATRICK NUCLEAR POWER PLANT</b>										DOCKET NUMBER (2) <b>0 5 0 0 0 3 3 3</b>				PAGE (3) <b>1 OF 0 3</b>		
TITLE (4) <b>SIMULTANEOUS HPCI AND RCIC SYSTEM INOPERABILITY</b>																
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 5	1 8	8 4	8 4	0 1	2	0 0	0 6	0 1	8 4					0 5 0 0 0		
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 8 (Check one or more of the following) (11)														
N		20.402(b)				20.406(a)				60.73(a)(2)(iv)				73.71(b)		
POWER LEVEL (10)		20.406(a)(1)(i)				60.36(a)(1)				60.73(a)(2)(v)				73.71(c)		
1 1 0 0		20.406(a)(1)(ii)				60.36(a)(2)				60.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)		
		20.406(a)(1)(iii)				60.73(a)(2)(i)				60.73(a)(2)(viii)(A)						
		20.406(a)(1)(iv)				60.73(a)(2)(ii)				60.73(a)(2)(viii)(B)						
		20.406(a)(1)(v)				60.73(a)(2)(iii)				60.73(a)(2)(ix)						
LICENSEE CONTACT FOR THIS LER (12)																
NAME <b>ROBERT T. LIENO, ACTING MAINTENANCE SUPERINTENDENT</b>										TELEPHONE NUMBER AREA CODE <b>3 1 5 3 4 2 - 3 8 4 0</b>						
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS						
A	BIN	TIE I	NIQ 1710	Y												
A	BJ	SHIV	SIO 1715	Y												
SUPPLEMENTAL REPORT EXPECTED (14)												EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)												NO				

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

While operating at full power the RCIC and HPCI systems were found to be inoperable at the same time. This placed the plant in a 24 hour limiting condition for operating in accordance with Technical Specification Sections 3.5.C and 3.5.E. RCIC was declared inoperable as the result of a malfunction found in the isolation circuitry. HPCI was inoperable due to stop valve stem cracking. Corrective action was taken to restore the RCIC system to service. The plant operated with both HPCI and RCIC inoperable for a period of 3 hours. Since ADS and low pressure emergency core cooling systems were operable this event did not represent a serious degradation of the public's health and safety.

LER 83-049/03X-1 is a related event.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) <b>JAMES A. FITZPATRICK NUCLEAR POWER PLANT</b>	DOCKET NUMBER (2)  0 5 0 0 0 3 3 3 8 4 - 0 1 2 - 0 0 0 2 OF 0 3	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

TEXT (If more space is required, use additional NRC Form 306A's) (17)

While operating at full power the RCIC and HPCI systems were discovered to be simultaneously inoperative. This placed the plant in a 24 hour limiting condition for operation (LCO) in accordance with Technical Specifications 3.5.C and 3.5.E.

On 17 May 1984 while inspecting the area where the RCIC steam supply piping penetrates the drywell into the reactor building it was noted that the cover was missing from a condolet in the isolation circuitry for the RCIC outboard steam isolation valve 13-MOV-16. Subsequent investigation on 18 May 1984 revealed that the condolet contained the thermocouple for that circuitry, that the thermocouple was disconnected, and that the wires were twisted together thereby forming another thermocouple junction. This condition made the circuit indicate and calibrate properly, thereby masking the problem during normal surveillance testing. 13-MOV-16 was closed and de-energized to properly isolate the RCIC steam supply line. RCIC was declared inoperative at 1130 on 18 May. The circuit was restored to normal and tested satisfactory by 1720 when RCIC was declared operable again.

An investigation was conducted to determine the reason this wiring had been altered. All other thermocouple sensors in the drywell entrance area and all RCIC steam leak detection thermocouples regardless of location were inspected and found satisfactory. Work records were also reviewed in an attempt to determine the cause. No reason could be determined. It was noted during the investigation that a redundant thermocouple existed in the drywell entrance which was operable and would have isolated the RCIC steam isolation valve should a leak have occurred.

As the result of the metallurgical report on a previous failure of the HPCI stop valve stem (LER 83-049/03X-1) and reports from the operators of excessive stop valve speed on opening, an inspection of the stem condition was performed coincident with the testing of the HPCI operability (necessary because RCIC was inoperative). It was noted that circumferential cracks were beginning to appear in the HPCI stop valve stem. The HPCI system was declared inoperable at 1415 on 18 May 1984. The stem was replaced. The turbine was restored on 24 May 1984 at 0440.

The cause of the stop valve stem cracks and the previous failure reported in LER-83-049/03X-1 was excessive tensile stress. This was due to failure to adjust the cushion chamber backpressure during valve overhaul. The result was a loss of damping and excessive stem speed at the end of the opening stroke. The cushion chamber backpressure was adjusted during this repair in accordance with manufacturer's instructions. This adjustment reduced the stem speed and very much smoothed the turbine starting transient.

Long term corrective action for this problem is to incorporate the procedure for cushion chamber backpressure adjustment into the HPCI turbine maintenance procedure. This procedure will be developed in conjunction with the Authority commitment to upgrade maintenance procedures. This will be completed by August 1985.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)

JAMES A. FITZPATRICK  
NUCLEAR POWER PLANT

DOCKET NUMBER (2)

0 5 0 0 0 3 3 3

LER NUMBER (6)

YEAR SEQUENTIAL REVISION  
NUMBER NUMBER NUMBER

8 4 - 0 1 2 - 0 0

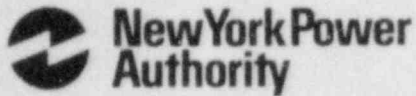
PAGE (3)

0 3 OF 0 3

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

During the time from 1415 when HPCI was declared inoperative until 1720 when RCIC was restored to service both systems were simultaneously out of service contrary to Technical Specification LCO requirements 3.5.C and 3.5.E. Since the ADS system and all low pressure injection systems were available, redundant means were available for accidents or malfunctions. As such, this event did not represent a significant degradation of the public's health and safety.

James A. FitzPatrick  
Nuclear Power Plant  
P.O. Box 41  
Lycoming, New York 13093  
315 342-3840



Corbin A. McNeill, Jr.  
Resident Manager

June 1, 1984  
JA,FP 84-0556

Document Control Desk  
United States Regulatory Commission  
Washington, DC 20555

REFERENCE: DOCKET NO. 50-333  
LICENSEE EVENT REPORT: 84-012-00

Dear Sir:

We have enclosed the referenced Licensee Event Report in accordance with 10CFR50.73.

If there are any questions concerning this report, please contact Mr. Robert Liseno at 315-342-3840, extension 220.

Very truly yours,

A handwritten signature in dark ink, appearing to read 'C. McNeill', with a stylized flourish at the end.

CORBIN A. McNEILL, JR.  
RESIDENT MANAGER

CAM:RTL:nan  
Enclosure

CC: USNRC, Region I (1)  
INPO Records Center, Atlanta, Ga. (1)  
Internal Power Authority Distribution  
NRC Resident Inspector  
Document Control Center  
LER/OR File

IE22  
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