

**LICENSEE EVENT REPORT (LER)**

FACILITY NAME (1)										DOCKET NUMBER (2)					PAGE (3)		
JAMES A. FITZPATRICK NUCLEAR POWER PLANT										05000333					1 OF 3		

TITLE (4)  
CONTAINMENT COOLING INOPERATIVE

EVENT DATE (6)			LER NUMBER (8)				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	3	0	8	4	8	4	-	0	0	2	-	0	0	0	2	2	3	8	4					
															0   5   0   0   0										
															0   5   0   0   0										

OPERATING MODE (8)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)				
N		2C 402(b)	20.406(c)	60.73(a)(2)(iv)	73.71(b)	
POWER LEVEL (10)	1 0 0	20.406(a)(1)(i)	60.36(c)(1)	X 60.73(a)(2)(v)	73.71(c)	
		20.406(a)(1)(ii)	60.36(c)(2)	60.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)	
		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)(vii)(B)		
		20.406(a)(1)(v)	60.73(a)(2)(iii)	60.73(a)(2)(ix)		

LICENSEE CONTACT FOR THIS LER (12)			
NAME		TELEPHONE NUMBER	
ROBERT T. LIENO, MAINTENANCE SUPERINTENDENT		AREA CODE	
		3   1   5	3   4   2   -   3   8   4   0

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	I P	A 1 8 0	Y							
X	E	O 5 2	G 0 8 0	Y							

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO				

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

On January 30, 1984 at 1051 hrs., while performing surveillance testing for an inoperative RHR service water pump, the B Emergency Service Water pump breaker tripped as it was starting. This placed the plant in a LCO requiring that the reactor be in cold shutdown within 24 hours. After investigation and adjustment of the overcurrent trip devices for the B ESW pump breaker, it was restored to service at 1855 hrs. On February 3, 1984 it was determined that the pump breaker's settings were not correctly set due to test equipment being out of calibration. The pump was taken out of service for 35 minutes while the breaker was replaced with one correctly set. On February 8, 1984 at 0420 hrs., while performing routine surveillance testing on the Emergency Diesel Generators, the B ESW pump breaker again tripped as it was starting. This placed the plant in a LCO requiring that the reactor be in cold shutdown within 24 hours. After adjustment of the pump and breaker trip devices, the pump was restored to service at 1745.

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PDR ADOCK 05000333  
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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 4	— 0 0 2	— 0 0	2	OF	0 3

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

On January 30, 1984 at 1051 hrs. while performing the required surveillance testing for an inoperative "C" RHR Service Water pump (refer to LER 84-001) the "B" ESW pump breaker tripped as it was starting. The loss of "B" Emergency Service Water pump combined with the inoperative "C" RHR Service Water pump placed the plant on a 24 hour reactor cold shutdown limiting condition for operation (Technical Specification Section 3.11 and 3.5.B).

The "C" RHR Service Water pump provides 50% of the cooling flow to "A" RHR heat exchanger for the containment cooling and shutdown cooling modes. The "B" ESW pump provides cooling to the "B" Emergency Diesel Generators which could be required on loss of off-site power to provide power to "B" side containment and shutdown cooling pumps and valves. Neither containment cooling nor shutdown cooling capabilities were completely lost however.

Investigation and troubleshooting commenced immediately. The "B" ESW pump motor was checked for grounds and shorted windings. None were found. The breaker overcurrent trip devices were checked for operation and setpoint using a breaker test set manufactured by E.I.L. Instruments, Inc. During the course of testing it was found that the overcurrent trip device setpoints were out of tolerance.

The breaker overcurrent trip devices were adjusted to the required settings, and "B" ESW was retested with satisfactory results. The pump was restored to service at 1855 hrs. on January 30, 1984.

On January 31, 1984 another breaker was being adjusted using the breaker test set. In this case, none of the overcurrent trip devices could be adjusted within tolerance. Although not an unusual occurrence to have difficulty adjusting overcurrent trip devices, this event prompted further investigation. Clamp-on ammeter checks over the lower range of the breaker test set suggested the possibility of a calibration error. The breaker test set had recently been repaired and calibrated by the manufacturer, so they were contacted to perform an evaluation on the equipment immediately. Due to other commitments the vendor was unable to perform the evaluation on January 31. On February 2, 1984, the vendor representative was present at the plant for the evaluation. It was found that the breaker test set was not calibrated correctly, indicating about 50% of applied amperage in the lower ranges. The test set was re-calibrated and a review of past calibration uses, showed the "B" ESW pump breaker trip devices had been adjusted upward by approximately 50% on January 30, 1984. Immediately a spare breaker was setup to replace the "B" ESW pump breaker. To accomplish the breaker replacement, the "B" ESW pump was removed from service for about 35 minutes on February 3, 1984. Due to "C" RHR Service Water pump still in the inoperative condition, the plant entered a 24 hour LCO. After breaker replacement the "B" ESW pump was tested several times satisfactorily and restored to service.

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				8 4	— 0 0 2	— 0 0	0 3	OF	0 3

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

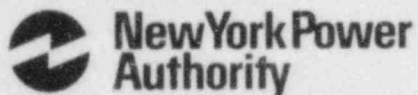
During the period between January 30 and February 3, since the trip devices were set high, the "B" ESW pump would have performed its required function, if called upon.

On February 7, 1984 at 0537 hrs. the HPCI turbine was removed from service to perform scheduled preventative and minor corrective maintenance and a modification to the overspeed trip mechanism. This placed the plant in a 7 day LCO per Section 3.5.C of Technical Specifications. The planned outage duration was 2-3 days. On February 8, 1984 at 0420 hrs. during a routine surveillance test of Emergency Diesel Generators (EDG), the "B" ESW pump failed to start. This placed the plant in a LCO requiring the reactor to be in cold shutdown within 24 hours (Technical Specification 3.5.C.1). Re-investigation of the occurrence started immediately. Due to the two (2) previous occurrences, the breaker was tested for proper overcurrent trip device settings. The as-found values were 1950 amperes vs. the required 2150 (2000-2300) amperes. Also performed was an inspection of wiring connections, a check of pump clearances and ease of rotation. These checks revealed the pump clearances were 10 mils under those required to prevent rubbing between impeller and wear ring. The trip devices and the pump clearances were then adjusted to within tolerance. Furthermore, measurements of starting current were performed with the electrical distribution system lineup the same as it was at the time of the failure to start. This showed a starting current comparable to that specified by the manufacturer when corrected for variations in system voltage (vendor: 1510 amps at 575 volts, actual: 1633 amps at 613 volts). The narrow pump clearances and slightly reduced margin between the starting current and the instantaneous overcurrent trip device settings are probable causes for the breaker trip. However, no definite cause could be determined from these results. The "B" ESW pump was tested satisfactorily for operability and restored to service at 1745 hrs. on February 8, 1984. This returned the plant to a 7 day LCO.

Because the cause is undetermined, the following monitoring program has been initiated. Daily, for one week, the pump will be checked for operability. At the end of the week, the breaker will be checked for any drift of overcurrent trip device setpoint. If satisfactory, then every other day, for a week, the pump will be checked for operability. Again at the end of the week, the breaker will be checked for overcurrent trip device setpoint drift. If satisfactory, the operability will be checked weekly for two weeks, then bi-weekly for a month. If satisfactory, the surveillance interval for pump operability will return to the normal monthly schedule. Through this testing it is believed that a better understanding of the cause will result if this intermittent problem continues to exist.

The actual effect of having HPCI and "B" ESW pump inoperative simultaneously is minimal. Injection systems exist to backup the HPCI system and redundant containment cooling and shutdown cooling equipment exists to cover equipment inoperative as the result of a "B" ESW pump trip.

James A. FitzPatrick  
Nuclear Power Plant  
P.O. Box 41  
Lycoming, New York 13093  
315 342.3840



Corbin A. McNeill, Jr.  
Resident Manager

February 23, 1984  
JAFP 84-0216

Document Control Desk  
United States Regulatory Commission  
Washington, DC 20555

REFERENCE: DOCKET NO. 50-333  
LICENSEE EVENT REPORT: 84-002-00

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 cursive script, appearing to read 'Corbin A. McNeill, Jr.'.

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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