

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>
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TITLE (4)  
**Redundant Emergency Diesel Generator Systems Inoperable**

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	0 7	8 5	8 5	0 0 3	0 0	0 0	0 3	0 7 8 5			0 5 0 0 0
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OPERATING MODE (9) <b>N</b>	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
POWER LEVEL (10) <b>1 0 0</b>	20.402(b)	20.406(e)	50.73(a)(2)(iv)	73.71(b)						
	20.406(a)(1)(i)	50.38(e)(1)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)	73.71(e)						
	20.406(a)(1)(ii)	50.38(e)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)						
	20.406(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)							
	20.406(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)							
20.406(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)								

LICENSEE CONTACT FOR THIS LER (12)

NAME <b>Hartford N. Keith</b>	TELEPHONE NUMBER
	AREA CODE: <b>3 1 5</b> NUMBER: <b>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 NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
X	EK	IRLY	B14185	Y					
X	EC	11512	G10180	Y					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)  NO

EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

During normal operation on February 5, 1985, EDG A & C and Emergency Service Water (ESW) Pump A were declared inoperable when the ESW pump tripped during startup for routine surveillance as required by Technical Specifications 4.11.D.1. This initiated a seven (7) day LCO which required testing of EDG B & D and ESW Pump B.

A series of problems with ESW Pump A phase overcurrent trip devices and calibration of the trip devices were encountered. On February 7, 1985, while EDG A & C and ESW Pump A were still considered inoperable, a problem with the engine start relay for EDG D was encountered. This problem resulted in the redundant EDG and ESW systems being declared inoperable and resulted in initiation of a 24 hours LCO.

Approximately 2 hours after the 24 LCO was initiated, it was terminated by declaring ESW Pump A (and EDG A & C) operable. Troubleshooting and repair efforts associated with EDG D engine start relays did not reveal the precise cause of the problem and the problem could not be duplicated. With respect to the problems associated with ESW Pump A, some procedural problems associated with calibration of circuit breaker overcurrent trip devices were noted and corrected in addition to replacement of overcurrent trip devices.

All of the systems were returned to operable status within the time allowed by Technical Specifications.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) <b>JAMES A. FITZPATRICK NUCLEAR POWER PLANT</b>	DOCKET NUMBER (2) <b>0500033385</b>	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		<b>85</b>	<b>093</b>	<b>000</b>	<b>2</b>	<b>OF 03</b>

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

At 2355 hours on February 5, 1985, during normal operation ESW Pump A tripped when started for routine surveillance required by Technical Specification 4.11.D.1.b. ESW Pump A and EDG's A and C (which are cooled by ESW Pump A) were declared inoperable. This action placed the plant in a seven (7) day LCO. EDG's B&D and ESW Pump B were tested as required by Technical Specification 4.9.B.5 with satisfactory results.

On the following day, February 6, 1985, an investigation revealed that the A phase overcurrent trip device for ESW Pump A was tripping at a low value. Motor winding resistance, motor insulation resistance, and motor feeder cable insulation resistances were normal. The phase overcurrent trip devices on all three phases were replaced, calibrated and the circuit breaker reinstalled. Testing of the pump to verify operability resulted in tripping of the circuit breaker on both attempts to start the pump.

The circuit breaker was removed and the overcurrent devices were again calibrated. Following re-installation of the circuit breaker ESW Pump A was started twice with satisfactory results.

On February 7, 1985, (at 0000 hours) ESW Pump A again tripped on overcurrent when an attempt was made to start the pump. The circuit breaker was again removed for testing. The B phase overcurrent device was found to be tripping instantaneously at a very low current. Further investigation revealed a normal trip value when the device cover was removed. It was determined that because the trip device was misaligned, replacing the cover after calibration caused a significant change in the calibration. It should be noted that the practice has been to perform the calibration with the device covers removed to allow easy access for any adjustments that might be required.

The devices were properly aligned, the covers installed and then the devices were again calibrated. In addition, the motor was tested by a manufacturer's representative and found to be satisfactory. The circuit breaker was installed and the pump started twice with satisfactory results.

At 1400 hours on February 7, 1985, the pump again tripped when an attempt was made to start it. Once again, calibration tests were performed. Phase A overcurrent trip device was found to be the cause of the trip. The device was replaced, calibrated, and the pump started (at 1850 hours) with satisfactory results. In addition, a program of increased surveillance was initiated for ESW Pump A.

At 1915 hours on February 7, 1985, EDG B&D were tested as a result of the 7 day LCO on EDG A&C and ESW Pump A. Following EDG testing, ESW Pump B could not be shutdown following shutdown of EDG B&D. Investigation revealed a problem with the engine start relay in the controls of EDG D that kept the ESW pump operating and resulted in inability to restart EDG B&D. This resulted in the redundant pairs of EDG's being inoperable. (EDG A&C due to ESW Pump A and EDG B&D due to the engine start relay) and initiated a 24 hour LCO in accordance with Technical Specification 3.9.B.4.

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

At 2058 hours on February 7, 1985, ESW Pump A was declared operable and the 24 hour LCO was terminated. A seven (7) day LCO for EDG B&D and ESW Pump B was continued in effect.

On February 8, 1985, (0400 hours) troubleshooting and investigation was completed on EDG D. Analysis of the troubleshooting data indicated a high resistance ground had been present at the contact junction of EDG engine start relays (ESR) 40, 200 and 400. Each relay shares a common linking of contacts with tachometer (speed) and engine start relays. In the process of troubleshooting and attempting to isolate the ground, the leads connected to this common point were lifted and checked for a ground path, no conductive path was found for each of the leads lifted. Leads then were reconnected and fuses inserted with no further indication of an abnormal resistance path. From the above observation and operating characteristics the relays (GE Type 2811 which requires only milliamperes to hold relay energized) it is concluded that a small piece of conductive material may have lodged on one of the leads and dropped off during the lifting. The leads were also visually examined at the termination and the covering was checked for conductive paths, none were found.

After satisfactory performance of the required surveillance EDG D and ESW Pump B were declared operable and the seven (7) day LCO terminated. On February 9, 1985, both the A and B side ESW pumps were rechecked for operability status by performance of surveillance tests with satisfactory results.

In addition to the corrective actions described above for ESW Pump A circuit breaker and EDG D engine start relays, the maintenance procedure for 600 volt air circuit breaker testing (MP-55.1) will be revised to require verification of overcurrent device alignment and installation of the cover prior to trip test after adjustments. This action will be completed prior to the next use of the procedure and no later than March 27, 1985.

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

Harold A. Glovier  
Resident Manager



March 7, 1985  
JAFF-85-0230

United States Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

REFERENCE: DOCKET NO. 50-333 Licensee Event Report: 85-003-00

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. Hartford N. Keith at (315) 342-3840, Extension 320.

Very truly yours,

A handwritten signature in black ink, appearing to read 'H. A. Glovier', written over the typed name.

HAROLD A. GLOVIER

HAG/HNK/cmd  
Enclosure

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LER/OR File

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