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)
JAMES A. FITZPATRICK NUCLEAR POWER PLANT	0 5 0 0 0 3 3 3	1 OF 0 2

TITLE (4)

Reactor Scram due to Reactor Recirculation Flow Transient

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 6	2 4	8 5	8 5	— 0 1 8	— 0 0	0 7	1 8	8 5		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 9 9	20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(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)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
Joseph P. Flaherty, Assistant Instrument & Control 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	A D	S C	B, 0, [redacted] 5	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 6/24/85 while at 99% power, both Reactor Recirculation Pump Motor Generator Scoop Tube Positioners were locked up and Feedwater Control was in Single Element Control for calibrating Feedwater Flow instruments.

Upon completion of calibration, Feedwater Control was placed in Three Element Control and B and then A scoop tubes were nulled and unlocked. Shortly thereafter, speed on B motor generator was noted to decrease to about 50% speed and then to ramp back to normal at 90% speed. Reactor Recirculation flow decreased then increased causing a Reactor Scram due to Average Power Range Monitor (APRM) Upscale Trips on all six (6) APRM's at 1522 hours.

Reactor Low Water Level caused by void collapse following the scram initiated a Group II and Reactor Water Cleanup System Isolation and started both Standby Gas Treatment Trains. Reactor water level initially went low then both Reactor Feed Pumps (RFP) increased level until RFP A tripped on Hi level. RFP B was manually tripped and then restarted. Pressure was maintained by use of Turbine Bypass Valves. Failure of a component in the Scoop Tube Positioner Control Circuit caused the Recirculation Flow Transient.

IE22
1/1

NRC Form 366
(9-83)

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
JAMES A. FITZPATRICK NUCLEAR POWER PLANT	0 5 0 0 0 3 3 3	8 5	— 0 1 8	— 0 0	0 2 OF 0 2

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

On 6/24/85 at 99% power, both Reactor Recirculation Pump Motor Generator Scoop Tube Positioners were locked up and Feedwater Control was in Single Element Control for calibrating Feedwater Flow instruments.

Upon completion of calibration, Feedwater Control was placed in Three Element Control. Approximately 5 minutes later, B scoop tube was nulled and unlocked with the motor generator at approximately 90% speed. Two (2) minutes and thirteen (13) seconds later, A scoop tube was nulled and unlocked with the motor generator at approximately 90% speed. Shortly thereafter, speed on B motor generator was noted to decrease to about 50% and then to ramp back to normal of 90% speed. Reactor Recirculation flow decreased then increased causing Average Power Range Monitor (APRM) Upscale Trips on all six (6) APRM's at 1522 hrs.

The void collapse following the scram caused a Group II and Reactor Water Cleanup System Isolation on Reactor Low Level of 177 inches above Top of Active Fuel (TAF). Standby Gas Treatment trains A and B also started on Reactor Low Level. Reactor water level initially went low on the scram then two (2) Reactor Feed Pumps increased level until A tripped on High Level (222.5 inches TAF). RFP B was manually tripped and then restarted for water level control. Pressure Control was maintained by use of Turbine Bypass Valves. Reactor Water Cleanup and Group II isolations were reset and Standby Gas Treatment was returned to normal.

Analyzing the data from the scram indicated that the problem was in the scoop tube positioner and not in the Reactor Recirculation Flow Control circuit. Two (2) suspect components (the amplifier and demodulator board) of the positioner were replaced. The system was aligned and tested satisfactory.

Reactor Startup commenced on 6/25/85 at 1427 hours with B scoop tube locked up and instruments monitoring the input and feedback signals. The signals have appeared normal.

Further investigation has revealed a faulty input diode in the demodulator board. It has been concluded that this diode failure was most likely the cause of the transient.

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

Harold A. Glovier
Resident Manager

New York Power Authority

July 18, 1985
JAFP-85-0603

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

REFERENCE: DOCKET NO. 50-333
LICENSEE EVENT REPORT: 85-018

Dear Sir:

Enclosed please find the referenced Licensee Event Report in accordance with the requirements of 10 CFR 50.73.

If there are any questions concerning this report, please contact Mr. Joseph P. Flaherty at (315) 342-3840, Extension 230.

HAROLD A. GLOVIER
RESIDENT MANAGER

HAG/JPF/cm
Enclosure
CC: USNRC, Region I (1)
INPO Records Center, Altanta, Georgia (1)
Internal Power Authority Distribution
NRC Resident Inspector
Document Control Center
LER/OR File

IE22
1/1