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) Rod Select Switch Malfunction In Reactor Manual Control System

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 9	2 8	8 4	8 4	— 0 1 9	— 0 0	1 0	2 8	8 4		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 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	X 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
Hartford N. Keith	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	J D	S E L	G 0 8 2	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)

In preparation for Control Rod Drive (CRD) 34-27 replacement during a plant maintenance outage, surveillance test F-ST-20F "Refueling Interlocks" was being performed as required by the plant operating technical specification, section 4.10.D.1 "Control Rod Drive And Control Rod Drive Maintenance". During the performance of the surveillance test selection of a second control rod failed to initiate the expected control rod block after control rod 34-27 had been selected and withdrawn one notch.

The attending plant operators immediately inserted control rod 34-27, suspended CRD maintenance, tagged the rod control power switch in the power off position and rod withdraw/insert switch in the neutral position to prevent any further control rod drive maintenance or control rod manipulation.

Corrective action was replacement of a malfunctioning 34-27 control rod select pushbutton switch which had not isolated the return bus power supply from other select switches. Retest after the replacement of the switch resulted in satisfactory operation.

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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 4	— 0 1 9	— 0 0	0 2 OF 0 2

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

On September 28, 1984, with the reactor operating mode switch locked in the refueling position and in preparation for maintenance on control rod drive 34-27(Coordinate position of drive in the reactor core), surveillance test F-ST-20F "Refueling Interlocks" was being performed as required by the plant operating technical specification, section 4.10.D.1 "Control Rod Drive and Control Rod Drive Maintenance".

The expected results of the surveillance test is with the reactor operating mode switch locked into the refueling position and one (1) rod withdrawn from the reactor core. No other rods can be selected for withdrawal. The selection of another rod is prevented by the selected rod "select switch" isolating the select power source and return from other switches.

During the performance of this surveillance on rod 34-27 a malfunction was detected within the rod selection circuit. This malfunction allowed another rod in the same withdrawal sequence rod group to be selected.

The attending operators immediately inserted control rod 34-27, suspended control rod drive maintenance, tagged the rod control power switch in the power off position and the rod withdraw/insert switch in the neutral position to prevent any further control rod drive maintenance or rod manipulation.

Troubleshooting of the CRD select circuit located the malfunction in rod 34-27 select switch. The select switch contains several contacts. When pushed in the downward direction the switch becomes magnetically latched in the open or closed position. In the latched position and with the reactor mode switch in the refueling position this latching action isolates select power from other rod select switches within the same withdrawal sequence group. This allows for only one (1) rod to be withdrawn from the reactor core (one rod only permissive). All other rod withdrawals are prohibited from being selected by the selection circuit or are blocked from withdrawal by the Rod Sequence Control System (RSCS) which monitors the full inserted position of the rods.

One of the select switch contacts had failed to stay latched in the open position, allowing the power supply return to be connected to the other select switches. From circuit analysis it appears two other rods (beyond the permissible one rod) could be selected. This condition could have allowed three (3) rods to be withdrawn at the same time.

The failed switch was replaced with a new unit and the select circuit tested satisfactory. No further action is required.

James A. FitzPatrick
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Harold A. Glovier
Resident Manager

New York Power Authority

October 29, 1984
JAFP84-1009

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

REFERENCE: DOCKET NO. 50-333
LICENSEE EVENT REPORT: 84-019-00

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 230.

Very truly yours,

H. A. Glovier

Harold A. Glovier
Resident Manager

HAG/HNK/jmk
Enclosure

CC: USNRC, Region I (1)
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