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 3

TITLE (4)
High Pressure Coolant Injection System Inoperable Due To Breaker Trip

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

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

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 May 25, 1986, with the plant at 100 percent power, surveillance test F-ST-76J45 (Heat Detector Functional Test-Water Spray Boundary Number 1) was being performed. There were no systems or components out of service which contributed to the event. While performing the test, approximately one gallon of water from the fire protection system was drained onto a Battery Motor Control Center (BMCC). Water ran into the breaker cubicles of the High Pressure Coolant Injection (HPCI) steam supply valve (23-MOV-14) and Main Steam Line Drain outboard isolation valve (29-MOV-77). The moisture in the breaker cubicles caused the breaker overloads to trip causing these valves to become inoperable. 29-MOV-77 was shut at the time of the event and would be required to be shut on a Primary Containment Isolation System (PCIS) actuation; therefore, there were no safety consequences resulting from the inoperability of this valve. The tripping of 23-MOV-14 caused the HPCI system to become inoperable, which caused the plant to enter a seven day Limiting Condition of Operation (LCO) and surveillance tests were commenced in accordance with this action statement.

The flow of Fire System water was stopped. The breakers were dried and tested and the HPCI System was returned to service. The drain line from the fire system was directed to the floor drain system to prevent recurrence.

IE22
1/1

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 6	— 0 1 2	— 0 0	0 2 OF 0 3

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

Event Description:

On May 25, 1986 at approximately 0230, with the plant at 100% power, surveillance test F-ST-76J45 (Heat Detector Functional Test-Water Spray Boundary Number 1) was commenced. There were no systems or components out of service which contributed to the event. A licensed reactor operator was performing the section of the test in which the water curtain flow control valve is isolated and the piping drained down to allow testing of the High Pressure Coolant Injection (HPCI) area heat detectors without initiating the water spray curtain . When the drain valve is initially opened, several quarts of water will normally drain. During the test a small amount of water will continue to drain until the pipe from the isolation valve to the flow control valve is empty. A maximum of approximately three gallons could drain from this valve station during the test.

When the operator began the test, he noticed tubing had previously been hose clamped to the drain line and was run through the deck grating. He assumed the tubing was "permanent" and ran directly to the floor drain below. He did not actually verify where the tubing ended. The tubing actually stopped just below the deck grating directly above Battery Motor Control Center 2 (BMCC-2).

The operator performed the section of the surveillance which isolated and drained the flow control valve. He did not notice the water flowing on top of BMCC-2. He then proceeded to the heat detector functional test section of the test. At 0310 the control room received an annunciator alarm "PCI System B Valve Overload or Loss of Power." This indicated a loss of the ability to operate a valve in the "B" Primary Containment Isolation System (PCIS). The Shift Supervisor stopped the surveillance and sent an operator to investigate the alarm. Before receiving a report, another annunciator, "HPCI Valve or Pump Motor Overload or Cont. Power Loss" was received in the control room. This indicated the loss of ability to operate a HPCI valve. The Shift Supervisor was then informed that BMCC-2 had water on top of it and that some water had run down the front and inside of the breaker cubicles for the HPCI steam supply valve (23-MOV-14) and the Main Steam Line Drain outboard isolation valve (29-MOV-77). The water had caused the breaker overloads to trip.

Valve 29-MOV-77 is a Primary Containment Isolation System (PCIS) valve. The valve was shut and would be required to be shut on a PCIS activation; therefore, there were no safety consequences resulting from the inoperability of 29-MOV-77.

Valve 23-MOV-14 is the steam supply valve for the HPCI turbine. The valve was shut at the time of the event and is required to open on a HPCI automatic activation; therefore, the HPCI system was made inoperable by the breaker trip of 23-MOV-14.

At 0340, the Shift Supervisor declared the HPCI system inoperable and commenced the required surveillance tests to verify operability of the Low Pressure Coolant Injection (LPCI) systems, Core Spray Systems, Reactor Core Isolation Cooling (RCIC) System and Automatic Depressurization System (ADS) actuation logic. Plant personnel were called in to dry out and test the breakers.

HPCI was tested satisfactory and declared operable at 0640 on May 25, 1986, three hours after being found inoperable.

Event Cause:

The primary cause of this event was that when the Fire System was modified to include water curtain spray boundaries, the drain lines from flow control valve stations were not permanently routed to the floor drain system. All of the flow control valve stations with the exception of the number 1 boundary (the station involved in this event) are located in areas with solid floors where the water drained off during testing or automatic activation will flow to a floor drain. The flow control valve station for number 1 boundary is located on a Reactor Building Crescent Area Mezzanine, which has a deck grating floor with another mezzanine directly below it containing two motor control centers. The initial design overlooked the difference in this station and the other stations in the plant.

A secondary cause of this event was the operator's failure to verify where the tube attached to the drain line routed the water. Had the operator been attentive to the length of tubing and the surrounding area, the BMCC directly below, the event could have been prevented. The surveillance had been performed after completion of the fire curtain modification installation. This lead to the assumption the tubing was adequate without further verification.

Immediate Corrective Actions:

1. Surveillance tests were commenced where HPCI was found to be inoperable.

2. The breakers for 23-MOV-14 and 29-MOV-77 were dried out and tested by plant electricians with satisfactory results.

3. The HPCI operability test was performed and HPCI was made operable.

4. The short tubing on drain line was removed and a longer temporary tubing was installed to direct water to the floor drain system.

5. All other flow control valve stations were inspected to ensure similar problems did not exist.

6. The operators involved in the incident were counselled.

7. Operations personnel have been informed of this event and instructed to verify temporary drain paths prior to use to ensure similar events will not occur.

Long Term Corrective Actions:

1. The temporary tubing will be replaced with permanent piping from the flow control valve station to the floor drain system.

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

Radford J. Converse
Resident Manager

New York Power Authority

June 24, 1986
JAFP-86-0539

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

REFERENCE: DOCKET NO. 50-333 Licensee Event Report: 86-012-00

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. Roger A. Locy (315) 342-3840, Extension 302.

R. Converse

RADFORD J. CONVERSE

RJC:RAL:dmh

Enclosure

CC: USNRC, Region I (1)
INPO Records Center, Altanta, Georgia (1)
Internal Power Authority Distribution
American Nuclear Insurers (1)
NRC Resident Inspector
Document Control Center
LER/OR File

IE22
1/1