

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)

Washington Nuclear Plant - Unit 2

DOCKET NUMBER (2)

05000397

PAGE (3)

1 OF 03

TITLE (4)

RPS Actuation - IRM Hi Flux

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)				
1	0	2	3	8	4	8	4	1	1	5	0	5	0	0	0
1	0	2	3	8	4	8	4	1	1	5	0	5	0	0	0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)

OPERATING MODE (9)	20.402(b)	20.406(e)	50.73(e)(2)(iv)	73.71(b)
2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
POWER LEVEL (10)	0.0	20.406(e)(1)(i)	50.73(e)(2)(v)	73.71(e)
		20.406(e)(1)(ii)	50.73(e)(2)(vi)	<input checked="" type="checkbox"/>
		20.406(e)(1)(iii)	50.73(e)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)
		20.406(e)(1)(iv)	50.73(e)(2)(viii)(A)	50.72(b)(2)(ii)
		20.406(e)(1)(v)	50.73(e)(2)(viii)(B)	
		20.406(e)(1)(vi)	50.73(e)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
R. L. Koenigs, Compliance Engineer	510 931 7711 Ext. 2279

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC
B	SJFCV	B570	N						
B	SJFCV	C600	N						

SUPPLEMENTAL REPORT EXPECTED (14)

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

ABSTRACT (Limit to 400 spaces - a space includes a free single-space typewritten line) (16)

During normal plant startup RFW-FCV-10 (Startup Feed Flow Control Valve) operation became erratic in both manual and automatic control modes, causing a rise in Reactor vessel level from +22 inches to +44 inches.

The large influx of relatively cold water into the reactor vessel caused an increase in reactor power above the IRM Hi-Hi setpoint which resulted in a Reactor Protection System (RPS) trip.

Post event investigation concluded that the air supply line to RFW-FCV-10 actuator and the position feedback arm were broken causing the erratic behavior.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMR NO. 3150-0104
EXPIRES 8/31/85

FACILITY NAME (1)

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TEXT (If more space is required, use additional NRC Form 388A's) (17)

Plant Conditions

- a) Operating Mode - 2
b) Power Level - 2%

Event

During normal reactor startup on 10/23/84, a lower than desired reactor vessel level of approximately +22 inches was noted. Reactor vessel level control was being accomplished using RFW-FCV-10 (Startup Flow Control Valve) in automatic. Due to the apparent inability of RFW-FCV-10 to control in automatic, manual control was attempted. However, RFW-FCV-10 acted in an erratic manner and opened fully causing an immediate rise in vessel level to +44 inches.

The increase in vessel level using relatively cold condensate water caused an increase in reactor power above the IRM Hi-Hi setpoint which resulted in automatic RPS trip.

Immediate Corrective Action

Operations personnel initiated corrective action per plant procedures to respond to the protective trip and placed the Plant in cold shutdown condition.

Further Evaluation and Corrective Action

Post shutdown investigation of the event determined that valve vibration had caused two failures to occur. The copper air supply line to the actuator had experienced a fatigue failure and the valve position feedback arm was disconnected from the unit at one end. These failures were the cause of the erratic valve behavior and subsequent protective trip.

Engineering evaluation of RFW-FCV-10 and its installation were performed and design modification direction was issued as follows:

- A. The final 3 feet of copper air supply tube to RFW-FCV-10 actuator was removed and replaced with stainless steel tube.
- B. An 11" section of stainless steel braided flex hose was used to connect the valve actuator to the newly installed stainless tube.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

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TEXT (If more space is required, use additional NRC Form 388A's) (17)

These actions are judged sufficient to prevent additional operational fatigue failure of the actuator's air supply lines. The position feedback arm was repaired and reinforced to preclude future failures. Valve operation was verified and the valve was returned to service.

Safety Significance

The failure of RFW-FCV-10, which resulted in an IRM Hi-Hi RPS trip, posed no threat to the health and safety of Plant personnel or to the public. The purpose of this RPS trip is to provide protection for undesired reactivity increases. The Plant Reactor Protection System functioned as designed and the Reactor was shutdown.

Similar Event

See LER 84-114

Washington Public Power Supply System

P.O. Box 968 3000 George Washington Way Richland, Washington 99352 (509) 372-5000

Docket No. 50-397

November 15, 1985

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: NUCLEAR PLANT NO. 2
LICENSEE EVENT REPORT NO. 84-115

Dear Sir:

Transmitted herewith is Licensee Event Report No. 84-115 for WNP-2 Plant. This report is submitted in response to the report requirements of 10CFR50.73 and discusses the item of reportability, corrective action taken, and action taken to preclude recurrence.

This is the follow-up report to the verbal notification given at 2400 hours on October 24, 1984.

Very truly yours,

JM Powers for

J. D. Martin (M/D 927M)
WNP-2 Plant Manager

JDM:mm

Enclosure:

Licensee Event Report No. 84-115

cc: Mr. John B. Martin, NRC - Region V
Mr. A. D. Toth, NRC - Site (901A)
Ms. Dottie Sherman, ANI
INPO Records Center - Atlanta, GA

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