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)
Washington Nuclear Plant - Unit 2	0 5 0 0 0 3 9 7	1 OF 0 2

TITLE (4)
Reactor Trip Due to Reactor Low Water Level

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 6	1 3	8 4	8 4	— 0 6 0	— 0	0 7	0 6	8 4		0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 1 8	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)	[X] 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
	AREA CODE
C.M. Powers, Reactor Engineering Supervisor	5 0 9 3 7 7 - 2 5 0 1 Ext. 2996

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
B	S J	F C V	B W	NO					

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)

A Low Reactor Water Level Reactor Protection System (RPS) trip occurred as a result of loss of feedwater supply capability. The operating Reactor feedpump tripped on low suction pressure when a condensate booster pump supplying the feedpump tripped. The booster pump trip was caused by a failure of the condensate long-cycle clean-up valve to the full open position which rapidly increased system flow beyond the operating filter demineralizer capacity and thus reduced booster pump suction pressure to its trip setpoint.

IE22-11

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9-83)

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

(a) Power Level - 18%
(b) Plant Mode - 1
(c) During Power Ascension Testing Program
(d) Turbine Generator Output 80 MWe

Event

During Power Ascension Testing, on 6-13-84, a Reactor Low Water Level Trip occurred due to loss of feedwater flow. This was caused by a low suction pressure trip of the condensate booster pumps and its associated Reactor feedpump. While placing a third condensate filter demineralizer in service, the condensate long cycle cleanup valve failed open. The combination of feeding the Reactor vessel and the cleanup line at maximum flow with only two filter demineralizer units in service produced enough system flow to depressurize the condensate booster pump suction header to the 50 psig low suction pressure trip setpoint, causing the pump supply circuit breakers to trip open. Loss of the booster pumps caused a related trip of the operating Reactor feedpump due to low suction pressure. This resulted in a loss of feed water supply to the Reactor and a decrease in water level to the low water level trip setpoint and activation of a Reactor Protection System (RPS) trip.

Immediate Corrective Action

The RCIC system was manually initiated to restore level. Subsequently, two condensate booster pumps and a Reactor feedwater pump were started to maintain level.

Further Corrective Action

Troubleshooting revealed that the packing had blown out of the condensate cleanup flow control valve (RFW-FCV-15) and that the packing ring was cocked as a result. The restriction of movement provided by the failed packing allowed a large open demand signal to develop when the valve actuator finally overcame the restriction, it rapidly opened the valve. The valve was repacked and satisfactorily tested for proper movement.

Safety Significance

The loss of feedwater flow resulting in a low Reactor water level posed no threat to the health and safety of Plant personnel or to the public because the Plant Protection Systems functioned as designed.

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

Docket No. 50-397
July 6, 1984

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

Subject: NUCLEAR PLANT NO. 2
LICENSEE EVENT REPORT NO. 84-060

Dear Sir:

Transmitted herewith is Licensee Event Report No. 84-060 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 0043 hours on June 14, 1984.

Very truly yours,

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

JDM:mm

Enclosure:
Licensee Event Report No. 84-060

cc: Mr. John B. Martin, Administrator
Region V, Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
1450 Maria Lane
Walnut Creek, California 94596
Mr. A. D. Toth, NRC Resident Inspector (901A)
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