

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) **Washington Nuclear Plant - Unit 2** DOCKET NUMBER (2) **050003917** PAGE (3) **1 OF 13**

TITLE (4) **Isolation of Reactor Water Cleanup**

EVENT DATE (8)			LER NUMBER (6)		REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)						
MONTH	DAY	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)					
*			07	2	0	2	1	0	1	1	8	4		050000

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)	20.405(c)	<input checked="" type="checkbox"/>	80.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) *	20.405(a)(1)(i)	80.38(a)(1)	<input type="checkbox"/>	80.73(a)(2)(v)	73.71(c)
	20.405(a)(1)(ii)	80.38(a)(2)	<input type="checkbox"/>	80.73(a)(2)(vi)	<input checked="" type="checkbox"/> OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	20.405(a)(1)(iii)	80.73(a)(2)(i)	<input type="checkbox"/>	80.73(a)(2)(vii)(A)	50.72(b)(2)(ii)
	20.405(a)(1)(iv)	80.73(a)(2)(ii)	<input type="checkbox"/>	80.73(a)(2)(vii)(B)	
	20.405(a)(1)(v)	80.73(a)(2)(iii)	<input type="checkbox"/>	80.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME **R. L. Koenigs, Compliance Engineer** TELEPHONE NUMBER **510 193 3171-12151011**

AREA CODE **510** Ext. **2279**

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	CF	LEFIT	RI31619	N					

SUPPLEMENTAL REPORT EXPECTED (14) YES (if yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15) MONTH **1** DAY **1** YEAR **1**

ABSTRACT (Limit to 1400 spaces - i.e. approximately fifteen single-space typewritten lines) (16)

During Plant operation, Reactor Water Cleanup System (RWCU) isolations occurred, due to erroneous RWCU high delta flow trips. (Isolation of RWCU is an ESF actuation.)

A total of three isolations occurred, one on 7/5/84 and two on 7/6/84. Prior to these trips, RWCU delta flow was functioning just below its trip setpoint (58.5 GPM).

Six additional isolations occurred as follows: One on 7/31/84; two on 8/8/84; one on 8/10/84; and two on 9/18/84. These were reported to the NRC at 1450 hours on 7/31/84, 0145 hours, on 8/9/84 and 0414 hours on 8/10/84, and 0300 hours and 1229 hours on 9/18/84.

	Operating Mode	Power Level
*Event 1	7/05/84 (LER 84-072-0)	1 042
Event 2	7/16/84 (LER 84-072-0)	1 042
Event 3	7/31/84 (LER 84-072-1)	2 005
Event 4	8/08/84 (LER 84-072-1)	2 001
Event 5	8/10/84 (LER 84-072-1)	2 004
Event 6	9/18/84 (LER 84-072-2)	2 001
Event 7	9/18/84 (LER 84-072-2)	1 022

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Washington Nuclear Plant - Unit 2	05000391784	-0712	-0120	12	OF	13	

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

Plant Condition

- Event 1 (7/05/84) Plant Mode - 1, Power Level - 42%
- Event 2 (7/06/84) Plant Mode - 1, Power Level - 42%
- Event 3 (7/31/84) Plant Mode - 2, Power Level - 5%
- Event 4 (8/08/84) Plant Mode - 2, Power Level - 1%
- Event 5 (8/10/84) Plant Mode - 2, Power Level - 4%
- Event 6 (9/18/84) Plant Mode - 2, Power Level - 1%
- Event 7 (9/18/84) Plant Mode - 1, Power Level - 22%

Event

On 7/5/84, a spurious high delta flow trip actuated an NSSSS isolation signal which resulted in closure of RWCU-V-1 and RWCU-V-4. An inspection of the system piping determined that no actual leaks existed. The isolation signals for RWCU-V-1 and RWCU-V-4 were reset and the RWCU system was returned to service.

On 7/6/84, two (2) RWCU high delta flow trips occurred and initiated a sequence of events identical to that described for the 7/5/84 isolation.

On 7/31/84, the RWCU system was rejecting flow to the main condenser, with delta flow above the trip setpoint (58.5 gpm) the high delta flow trip delay of 45 seconds was exceeded which actuated an NSSSS isolation signal, resulting in closure of RWCU-V-1 and RWCU-V-4. The operators were not aware that a high delta flow condition existed until the isolation took place, because the high delta flow annunciator actuates with the NSSSS isolation signal after the 45 second time delay. An inspection of the system piping determined that no actual leaks existed. The isolation signals for RWCU-V-1 and RWCU-V-4 were reset and the RWCU system was returned to service.

Further RWCU High Delta Flow trips occurred, two (2) on 8/8/84 and one (1) on 8/10/84, during flow rejection to the main condenser. The trips initiated a sequence of events identical to that described for the 7/31/84 isolation.

On 9/18/84 two spurious high delta flow trip isolations occurred. The first occurred during plant heatup while the RWCU system was rejecting flow to the main condenser. The sequence of events was identical to that described for the 7/31/84 isolation. Another High Delta Flow Trip occurred on 9/18/84 while shifting RWCU flow from the reject mode to the recirculation mode. A High Delta Flow Trip condition during the transfer initiated an isolation with resultant events the same as described above.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Washington Nuclear Plant - Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 3 9 7 8 4	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		84	07	2	02	03 OF 03

TEXT (If more space is required, use additional NRC Form 308A's) (17)

Immediate Corrective Action

Originally the RWCU delta flow instruments were checked for proper calibration. The return to Reactor vessel transmitter RWCU-FT-41 was found to have inadequate response. The transmitter was replaced. The sensing lines for the blowdown flow transmitter RWCU-FT-15 were found partially filled. The sensing lines were refilled and vented at their high points.

Following the 7/31/84, 8/8/84, 8/10/84 and 9/18/84 events the system piping was inspected with no leaks found. The isolation signals were reset and the RWCU system was returned to service.

Future Corrective Action

The RWCU delta flow network was evaluated and found to be functional per design. It was noted that RWCU reject flow limits, to prevent high delta flow isolations, vary with RWCU inlet temperature. A letter has been issued to Plant operators providing information on interpreting observed indications.

Also, the high delta flow annunciator circuit was redesigned such that annunciator actuation takes place when the trip setpoint is reached, rather than at isolation. Field implementation of this design change is complete.

No further action is anticipated relating to this LER.

Safety Significance

The occurrence of these events did not affect the safety of the Plant or that of the public. The system functioned to isolate in accordance with its design basis.

Similar Events

See LER 84-097-0 for an additional isolation of the RWCU system.

Washington Public Power Supply System

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

Docket No. 50-397

October 11, 1984

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

Subject: NUCLEAR PLANT NO. 2
LICENSEE EVENT REPORT NO. 84-072-02

Dear Sir:

Transmitted herewith is Licensee Event Report No. 84-072-02 for WNP-2 Plant. This report provides supplemental information to LER 84-072, Rev. 0, discusses subsequent events and provides additional information on actions taken to preclude recurrence.

This is the follow-up report to verbal notifications given at 1450 hours on July 31, 1984, 0145 hours on August 9, 1984, 0414 hours on August 10, 1984, and 0300 hours and 1229 hours on September 18, 1984.

Very truly yours,

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

JDM:mm

Enclosure:
Licensee Event Report No. 84-072-02

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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