

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8707300029 DOC. DATE: 87/07/23 NOTARIZED: NO DOCKET #  
 FACIL: 50-397 WPPSS Nuclear Project, Unit 2, Washington Public Powe 05000397  
 AUTH. NAME AUTHOR AFFILIATION  
 ARBUCKLE, J. D. Washington Public Power Supply System  
 POWERS, C. M. Washington Public Power Supply System  
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 87-017-00: on 870623, RWCU sys automatically isolated due to high differential flow. Caused by leakage through influent isolation valve for filter demineralizer which subjected sys to high pressure. RWCU pumps returned to Svc. W/870723 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 4  
 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD5 LA	1 1	PD5 PD	1 1
	SAMWORTH, R	1 1		
INTERNAL:	ACRS MICHELSON	1 1	ACRS MOELLER	2 2
	AEOD/DOA	1 1	AEOD/DSP/NAS	1 1
	AEOD/DSP/ROAB	2 2	AEOD/DSP/TPAB	1 1
	DEDRO	1 1	NRR/DEST/ADE	1 0
	NRR/DEST/ADS	1 0	NRR/DEST/CEB	1 1
	NRR/DEST/ELB	1 1	NRR/DEST/ICSB	1 1
	NRR/DEST/MEB	1 1	NRR/DEST/MTB	1 1
	NRR/DEST/PSB	1 1	NRR/DEST/RSB	1 1
	NRR/DEST/SGB	1 1	NRR/DLPQ/HFB	1 1
	NRR/DLPQ/QAB	1 1	NRR/DOEA/EAB	1 1
	NRR/DREP/RAB	1 1	NRR/DREP/RPB	2 2
	NRR/PMAS/ILRB	1 1	NRR/PMAS/PTSB	1 1
	REG FILE 02	1 1	RES DEPY GI	1 1
	RES TELFORD, J	1 1	RES/DE/EIB	1 1
	RGN5 FILE 01	1 1		
EXTERNAL:	EG&G GROH, M	5 5	H ST LOBBY WARD	1 1
	LPDR	1 1	NRC PDR	1 1
	NSIC HARRIS, J	1 1	NSIC MAYS, G	1 1



## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Washington Nuclear Plant - Unit 2										DOCKET NUMBER (2) 0 5 0 0 0 3 b 17				PAGE (3) 1 OF 13		
TITLE (4) Reactor Water Cleanup System Isolation Due to Demineralizer Influent Isolation Valve Leakage																
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)				
06	23	87	87	017	0	07	23	87				0 5 0 0 0				
OPERATING MODE (9) 2		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 18 CFR 5: (Check one or more of the following) (11)														
POWER LEVEL (10) 0 0 1		28.482(a)				28.488(a)				28.736(a)(2)(v)				72.71(b)		
		28.488(a)(1)(i)				28.384(a)(1)				28.736(a)(2)(v)				72.71(a)		
		28.488(a)(1)(ii)				28.384(a)(2)				28.736(a)(2)(vi)				OTHER (Specify in Abstract below and in Text, NRC Form 308A)		
		28.488(a)(1)(iii)				28.736(a)(2)(i)				28.736(a)(2)(vii)(A)						
		28.488(a)(1)(iv)				28.736(a)(2)(ii)				28.736(a)(2)(vii)(B)						
		28.488(a)(1)(v)				28.736(a)(2)(iii)				28.736(a)(2)(viii)						
LICENSEE CONTACT FOR THIS LER (12)																
NAME J.D. Arbuckle, Compliance Engineer										TELEPHONE NUMBER 5 0 19 3 1717 12 11 15						
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						
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 June 23, 1987 at 1342 hours, the Reactor Water Cleanup (RWC) System automatically isolated due to high differential flow. The isolation occurred during the performance of an RWC Demineralizer Backwash and Precoat procedure. When the Radwaste Control Room Operator de-isolated an RWC Filter Demineralizer after precoating, a flow upset caused the differential flow indication to go off-scale high causing the system to isolate and both RWC pumps to trip.

The cause of this event was leakage through an influent isolation valve for a filter demineralizer, which subjected the precoat system to an abnormally high pressure. The cause of the leakage was determined to be incomplete work instructions associated with the rework of the valve during the last refueling outage. This valve is adequately unique and the generic valve procedure used did not completely address the maintenance of such.

There is no safety significance associated with this event in that the RWC System isolated as designed. This event posed no threat to the health and safety of either the public or plant personnel.

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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	0 5 0 0 0 3 9 7 8 7	— 0	1 7	— 0 0	0 2	OF	0 3

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

Plant Conditions

- a) Power Level - 1.5%
- b) Plant Mode - 2 (Startup)

Event Description

On June 23, 1987 at 1342 hours, the Reactor Water Cleanup (RWC) System automatically isolated due to high differential flow. The isolation occurred during the performance of the Demineralizer Backwash and Precoat section of Plant Procedure 2.2.3, "Reactor Water Cleanup System." When the Radwaste Control Room Operator de-isolated an RWC Filter Demineralizer (RWC-DM-1B) after precoating, a flow upset caused the differential flow indication to go off-scale high for approximately 45 seconds, resulting in the system isolation and tripping of RWC Pumps 1A and 1B.

The cause of this event was leakage through the Influent Isolation Valve (RWC-V-206B) for RWC-DM-1B, which subjected the RWC Precoat System to an abnormally high pressure. As a result, Precoat System Relief Valves CF-RV-661 and 663 lifted, resulting in a high differential flow mismatch and automatic system isolation. RWC Pumps 1A and 1B tripped on a high differential flow isolation due to isolating RWC-CM-1B while the precoat tank was de-isolated. It should be noted that Plant Operators took appropriate action to reduce the high differential flow, but were unsuccessful in their attempt.

The cause of RWC-V-206B leakage was determined to be incomplete work instructions associated with the rework of the valve during the last outage. This valve is adequately unique and the generic valve procedure used did not completely address the maintenance of such. A contributing factor in this event is system design in that, with the existing automatic valve sequencing for the RWC Filter Demineralizers, only single valve isolation between the high pressure filter and low pressure precoat system is provided when shifting from precoat retain to hold modes.

Immediate Corrective Action

The two RWC pumps were restarted and the System returned to service.

Further Corrective Action

- A Maintenance Work Request (MWR) was written to perform stem adjustments to RWC-V-206B and verify that the valve plug made contact with the valve seat ring. This work has been completed and the stem adjustments corrected the leakage problem.
- A procedure will be developed/modified for the maintenance and followup testing of RWC Valves 206A/B, 210A/B, 210A/B and 211A/B.
- A Plant modification document has been prepared to consider modifying the RWC Filter Demineralizer circuit logic to allow double valve isolation between the high and low pressure systems at all times.



## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

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DOCKET NUMBER (2)

LER NUMBER (5)

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Washington Nuclear Plant - Unit 2

0 5 0 0 0 3 9 7 8 7 - 0 1 7 - 0 0 0 3 OF 0 3

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

Safety Significance

There is no safety significance associated with this event in that the RWCU isolated as designed. This event posed no threat to the health and safety of either the public or plant personnel.

Similar Events

There have been a number of other LERs associated with RWCU differential flow problems; however, none with the same root cause.

EIIS InformationText ReferenceEIIS Reference

Reactor Water Cleanup System  
RWCU-DM-1B  
RWCU-V-206B  
CF-RV-661/663  
RWCU-P-1A/1B

## System

## Component

CE	---
CE	FDM
CE	PDVC
CE	RV
CE	P

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM

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P.O. Box 968 • 3000 George Washington Way • Richland, Washington 99352

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Docket No. 50-397

July 23, 1987

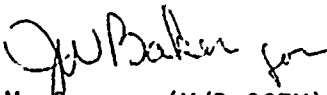
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Washington, D.C. 20555

Subject: NUCLEAR PLANT NO. 2  
LICENSEE EVENT REPORT NO. 87-017

Dear Sir:

Transmitted herewith is Licensee Event Report No. 87-017 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.

Very truly yours,

  
C.M. Powers (M/D 927M)  
WNP-2 Plant Manager

CMP:lc

Enclosure:  
Licensee Event Report No. 87-017

cc: Mr. John B. Martin, NRC - Region V  
Mr. R. T. Dodds, NRC Site (M/D 901A)  
INPO Records Center - Atlanta, GA  
Ms. Dottie Sherman, ANI  
Mr. D. L. Williams, BPA (M/D 399)

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