

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8706100023 DOC. DATE: 87/05/29 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 87-008-00: on 870429, RHR sys primary containment outboard shutdown cooling supply valve RHR-V-8 automatically isolated resulting in loss of RHR shutdown cooling. Caused by personnel pressurizing one side of valve. W/870529 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
	SANWORTH, R	1	1				
INTERNAL:	ACRS MICHELSON	1	1		ACRS MOELLER	2	2
	AEOD/DOA	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		<u>REG FILE</u> 02	1	1
	RES DEPY GI	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

TOTAL NUMBER OF COPIES REQUIRED: LTTR 42 ENCL 40

**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																					
TITLE (4) Residual Heat Removal System Shutdown Cooling Containment Isolation Valve Closure Due to Personnel Error																															
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   4   2		9   8		7   8		7		0   0		8		0   0		0   5		2   9		8   7								0   5   0   0   0					
OPERATING MODE (9)						THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)																									
5						20.402(b)						20.406(a)						X 60.73(a)(2)(iv)						73.71(b)							
POWER LEVEL (10)						20.406(a)(1)(i)						60.36(a)(1)						60.73(a)(2)(v)						73.71(a)							
0   0   0						20.406(a)(1)(ii)						60.36(a)(2)						60.73(a)(2)(vi)						OTHER (Specify in Abstract below and in Text, NRC Form 356A)							
						20.406(a)(1)(iii)						60.73(a)(2)(i)						60.73(a)(2)(vii)(A)													
						20.406(a)(1)(iv)						60.73(a)(2)(ii)						60.73(a)(2)(vii)(B)													
						20.406(a)(1)(v)						60.73(a)(2)(iii)						60.73(a)(2)(x)													
LICENSEE CONTACT FOR THIS LER (12)																															
NAME																				TELEPHONE NUMBER											
J. D. Arbuckle, Compliance Engineer																				AREA CODE 5   0   9   3   1   7   1   -   1   1   1											
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																															
CAUSE		SYSTEM		COMPONENT		MANUFACTURER		REPORTABLE TO NPDOS				CAUSE		SYSTEM		COMPONENT		MANUFACTURER		REPORTABLE TO NPDOS											
SUPPLEMENTAL REPORT EXPECTED (14)																				EXPECTED SUBMISSION DATE (15)											
YES (If yes, complete EXPECTED SUBMISSION DATE)										X NO										MONTH DAY YEAR											

**ABSTRACT** (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (18)

On April 29, 1987 at 1227 hours, the Residual Heat Removal (RHR) System Primary Containment Outboard Shutdown Cooling Supply Valve (RHR-V-8) automatically isolated, causing the loss of RHR Shutdown Cooling. At the time of the isolation, the plant was in Operational Mode 5 (Refueling) with the reactor head removed, the reactor cavity flooded, and the fuel pool gates removed. The cause of the isolation is attributed to maintenance being performed on an equalizing valve for RHR Differential Pressure Indicating Switch (DPIS) 12A.

The event occurred when a Plant Instrument and Control Technician, in attempting to identify reported leakage on the equalizing valve to RHR-DPIS-12A (RHR Shutdown Cooling Supply Leak Detection High Flow Indicator), closed the equalizing valve and pressurized one side. As a result, RHR-DPIS-12A sensed a differential pressure above its setpoint and, by design, caused RHR-V-8 to close.

The cause of the event has been determined to be incomplete guidance provided by the Plant Maintenance Engineer who prepared the work instructions for performing maintenance on the equalizing valve.

There is no safety significance associated with this event. At the time of the isolation, reactor water level was greater than 22 feet above the reactor vessel flange which provides a large heat sink for core cooling and adequate time to restore RHR Shutdown Cooling, or initiate an alternate decay heat removal method (an alternate method of Shutdown Cooling was available if needed). In addition, RHR Shutdown Cooling was restored in less than one hour.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (8)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Washington Nuclear Plant - Unit 2	0 5 0 0 0 3 9 7 8 7	—	0 0 8	—	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 - 0%
- b) Plant Mode - 5 (Refueling)

Event Description

On April 29, 1987 at 1227 hours, the Residual Heat Removal (RHR) System Primary Containment Outboard Shutdown Cooling Supply Valve (RHR-V-8) automatically isolated due to maintenance being performed on an equalizing valve for RHR Differential Pressure Indicating Switch (DPIS) 12A. The RHR Shutdown Cooling Supply Valve is a Nuclear Steam Supply Shutoff System (Containment Isolation) valve. The closing of RHR-V-8 resulted in the loss of a suction path to the RHR Shutdown Cooling Loops (the valve is interlocked to the Shutdown Cooling RHR pumps such that the pumps trip when the valve closes). At the time of the event, the plant was in Operational Mode 5 (Refueling) with the reactor head removed, the reactor cavity flooded, and the fuel pool gates removed. At 1244 hours on April 29, 1987 RHR Shutdown Cooling was re-established using RHR Loop "B".

The event occurred when a Plant Instrument and Control Technician, in attempting to identify reported leakage on the equalizing valve to RHR-DPIS-12A (RHR Shutdown Cooling Supply Leak Detection High Flow Indicator), closed the equalizing valve and pressurized one side. As a result, RHR-DPIS-12A sensed a differential pressure above its setpoint (6.3 psid) and, by design, the RHR Shutdown Cooling Isolation Relay (MS-RLY-K30) de-energized, causing RHR-V-8 to close.

The cause of the event has been determined to be incomplete guidance provided by the Plant Maintenance Engineer who prepared the work instructions for performing maintenance on the equalizing valve. The engineer should have provided a caution statement in the work instructions to alert the technician that an RHR Shutdown Cooling isolation would occur if the equalizing valve was closed and pressurized with RHR-DPIS-12A in service. Plant procedures were not the cause of this event.

Immediate Corrective Action

RHR-DPIS-12A was returned to service. RHR-V-8 was re-opened and Plant Operators completed actions to return RHR Shutdown Cooling Loop "B" to service.



## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

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EXPIRES: 8/31/85

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 1 7 8 1 7	—	0 6 1 8	—	0 0 0	13	OF 0 13

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

Further Corrective Action

Plant Maintenance and Technical Engineers who prepare Maintenance Work Requests will be instructed to provide special precautions in those situations where work is performed on systems which are in service.

Operations Shift Managers will be expected to either communicate to craftsmen the scope of the work being approved, or provide recommendations to defeat the trip function in those cases where work is to be performed on out-of-service components in systems that are in service.

This LER will be required reading for all Plant Maintenance Engineers, Plant Technical Engineers, Operations Shift Managers and Instrument and Control Technicians.

Safety Significance

There is no safety significance associated with this event. At the time of the event the reactor vessel head was removed and reactor water level was greater than 22 feet above the reactor vessel flange. These conditions provide a large heat sink for core cooling with adequate time to restore RHR Shutdown Cooling or initiate an alternate method of decay heat removal. RHR Shutdown Cooling was restored in less than one hour, and an alternate decay heat removal system was available if needed. Secondary containment, although not necessary during the Plant conditions at this time, was maintained throughout the event. Reactor core circulation was provided by the Reactor Water Cleanup System and the CRD System was operational. This event caused no threat to the safety of the public or plant personnel.

Similar Events

None

EIIS InformationText ReferenceEIIS Reference

	System	Component
Reactor Containment	C	----
Residual Heat Removal Shutdown Cooling Supply Valve	BO	ISV
Residual Heat Removal Shutdown Cooling Supply Valve Relay	BO	94
Nuclear Steam Supply Shutoff Valve		ISV
Control Rod Drive System	AA	--
Reactor Water Cleanup System	CE	--

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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

May 29, 1987

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Washington, D.C. 20555

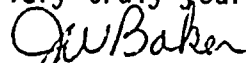
Subject: NUCLEAR PLANT NO. 2  
LICENSEE EVENT REPORT NO. 87-008

Dear Sir:

Transmitted herewith is Licensee Event Report No. 87-008 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 a follow-up to the verbal notification given at 1302 hours on April 29, 1987.

Very truly yours,



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

CMP:db

Enclosure:

Licensee Event Report No. 87-008

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

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