

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Washington Nuclear Project - Unit 2										DOCKET NUMBER (2) 0 5 0 0 0 3 9 7				PAGE (3) 1 OF 0 2										
TITLE (4) Grounds in MSRV Solenoids																								
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	3	2	2	8	4	8	4	0	2	7	0	0	0	4	1	8	8	4	0	5	0	0	0	0
OPERATING MODE (9) 4			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)																					
POWER LEVEL (10) 0 0 0			20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)									
			20.405(a)(1)(i)				50.36(c)(1)				X 50.73(a)(2)(v) (d)				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 365A)									
			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)				50.72(b)(2)(iii)									
			20.405(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(x)													
LICENSEE CONTACT FOR THIS LER (12)																								
NAME L. D. Kassakatis, Plant Compliance Engineer										TELEPHONE NUMBER 5 0 9 3 7 7 - 2 5 0 1														
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) Ext. 2201																								
CAUSE	SYSTEM	COMPONENT	MANUFAC- TURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFAC- TURER	REPORTABLE TO NPRDS														
C	S	B	S	P	V	C	7	1	0	N														
SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR										
X YES (If yes, complete EXPECTED SUBMISSION DATE)										NO		0	6	2	1	8	4							

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

Grounds on the 125 VDC instrument bus were traced to Main Steam Relief Solenoid Valves MSRV-4B and MSRV-3C. During the Startup Test Program, five MSRV solenoids were determined to have grounds and were replaced. After consultation with General Electric, all installed MSRV solenoids, active or not, were tested for grounding by megger. After megger testing the solenoid coil resistance was measured. Each active solenoid was cycled ten times and a final ground check was performed. Voltage spike suppression diodes had been installed across each solenoid circuit prior to this testing. Eight more solenoid grounds were found due to this investigation. This was reported pursuant to 10 CFR 50.72(b)(2)(iii). This LER provides written follow-up pursuant to 10 CFR 50.73(a)(2)(v)(d).

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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 (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Washington Nuclear Project - Unit 2	0 5 0 0 0 3 9 7 8 4	—	0 2 7	—	0 0 0 2	OF	0 2

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

125VDC instrument bus grounds were traced to two MSRV Solenoid Valves. The ground was traced to MSRV-4B on 03/10/84. A solenoid of MSRV-3C was found grounded four days later. At 1909 p.m. (PST) on 3/22/84, WNP-2 contacted the NRC via ENS phone to state that we had a problem which was possibly reportable pursuant to 10 CFR 50.72(b)(2)(iii).

General Electric was contacted due to this problem also being identified on five MSRV solenoids during preoperational testing. With General Electric guidance a program was developed to test all MSRV solenoids for grounding. Suppression diodes were installed across the solenoid coil circuitry per the vendors (Crosby Valve) suggestion to General Electric, to suppress the induced voltage caused by the collapsing magnetic field following a solenoid de-energization.

All solenoids received a 500 VDC megger test to determine insulation resistance to ground. After the megger testing, coil resistance was measured on all solenoids in an active installation (i.e. 18 MSRV and 14 ADS solenoids). Seven failures were found: four of the failures were valves in active positions, two were installed in inactive positions, and one was from Warehouse spares.

All active solenoids were cycled ten times without cycling the relief valves and another ground measurement was performed. One more failure was located.

All bad solenoids were replaced. The same testing was performed on the replacements. All checked satisfactory. During the Heatup Phase of the Power Ascension Testing Program, all Main Steam Relief Valves cycled normally during the 250# relief valve test.

Further investigation into the cause of the solenoid grounding is being pursued by General Electric.

MSRV-4B Sol. A	Replaced
MSRV-3C Sol. C	Replaced
MSRV-1A Sol. A	Inactive position - Did not replace
MSRV-1C Sol. A	Inactive position - Did not replace
MSRV-2A Sol. C	Replaced
MSRV-4D Sol. C	Replaced
MSRV-3D Sol. A	Failed after 10 cycles - Replaced
MSRV-4A Sol. C	Replaced
MSRV-2C Sol. C	Swapped with inactive position 2C Sol. A
Spare from Warehouse	- Removed from Spares

Washington Public Power Supply System

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

Docket No. 50-397
April 18, 1984

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U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

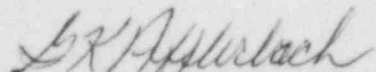
Subject: **NUCLEAR PROJECT NO. 2**
LICENSEE EVENT REPORT NO. 84-027

Dear Sir:

Transmitted herewith is Licensee Event Report No. 84-027 for WNP-2 Plant. This report is submitted in response to the report requirements of Technical Specification Section 6.9.1.7 and discusses the item of noncompliance, corrective action taken, and action taken to preclude recurrence.

This is the follow-up report to the verbal notification given at 1909 hours on March 22, 1984.

Very truly yours,


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

JDM:de

Enclosure:
Licensee Event Report No. 84-027

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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