

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)

Washington Nuclear Project - Unit 2

DOCKET NUMBER (2)

0 5 0 0 0 3 9 1 7 1 OF 3

PAGE (3)

TITLE (4)

Reactor Shutdown - IRM Failures

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	1	1	9	8	4	8	4	0	0	4	0	5	0	0	0
0	1	1	9	8	4	8	4	0	0	4	0	5	0	0	0

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)	20.406(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)	20.406(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
0	20.406(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
0	20.406(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
0	20.406(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
0	20.406(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
L. D. Kassakatis	AREA CODE 5 0 9 3 7 7 - 2 5 0 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	
E	J	C	D	E	T	G	0	8	0	Yes
E	J	C	A	M	P	G	0	8	0	Yes

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
X					

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

Immediately after initial criticality was achieved Intermediate Range Monitor Channels A, B, and D were determined to be inoperable. Technical Specification 3.3.1 requires a minimum of three operable Intermediate Range Monitor Channels per Reactor Protection System Trip System in Operational Condition 5. Action Statement Three was complied with and all rods were inserted within one hour. Intermediate Range Monitor Detectors A and B were shorted at the electrical connection between the signal cable and the detector, while Intermediate Range Monitor D had a failed electronic component in its pre-amplifier.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

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

Plant Operating Conditions:

Reactor Power: Less Than 1%
Mode Switch Position: Start/Hot Standby
Operational Condition 5

The Reactor was brought to a critical condition at 2145 hrs. on January 19, 1984, and the Intermediate Range Monitor (IRM) Detectors were being checked to verify detector response to neutron flux. At Reactor criticality IRMs C, E, F, G, and H responded to increasing neutron flux, but IRMs A, B, and D did not respond. The Reactor was shutdown to investigate the IRM problem in compliance with the WNP-2 Plant Technical Specification which requires a minimum of three operable IRM channels per trip system of the Reactor Protection System.

Investigation of the IRM problems revealed that IRM detectors A and B had failed at the electrical connection between the signal cable and the detector. The problem with IRM D was a failed electronic component in its pre-amplifier.

The failure of IRMs A and B is thought to have been caused by excessive vibration while driving the detectors in or out. A program has been instituted to reduce the vibration in these detectors. There was no apparent reason for failure of the electronic component in IRM D.

The Intermediate Range Monitoring System provides signals to the Reactor Protection System and the Reactor Manual Control System which provide Reactor Scram and control rod block function, respectively. The Reactor Protection System Trip System B was inoperable from 2145 hrs. on January 19, 1984, to 0400 hrs. on January 20, 1984. The system was inoperable because in Operational Condition 5 three channels per trip system are required per Technical Specification Table 3.3.1-1.1.a and b, and only two IRM Channels, F and H, were operable in Trip System B.

There were no safety consequences or implications associated with this event. The Power Ascension Test being conducted was designed to verify IRM Channel operability while maintaining the Reactor in a protected condition. The Reactor Protection System was in the non-coincidence Scram mode with the RPS Neutron Monitor Shorting Links removed. In this condition the Source Range Monitoring System will cause a Reactor Scram on a Hi-Hi signal. The Source Range Monitoring System Hi-Hi trip was set at a conservative one half a decade lower than its normal trip setpoint.

Components that Failed:

IRM Detector G.E. Type 112C3144G8
EP No. C51-N002A-H
Supply System Equipment Piece No. IRM-DET-2A and IRM-DET-2B
IRM Pre-Amplifier G.E. Type 163C1263AAG1
EP No. C51-K002 A-H
Supply System Equipment Piece No. IRM-EAMP-2D

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

Corrective Actions:

IRM Detectors A and B were replaced. The Pre-Amplifier for IRM D was exchanged with IRM B and subsequently repaired and returned to service in the IRM B Channel.

Washington Public Power Supply System

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

Docket No. 50-397
February 16, 1984

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

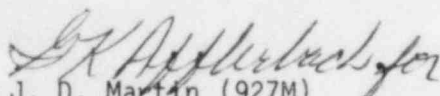
Subject: **NUCLEAR PROJECT NO. 2**
LICENSEE EVENT REPORT NO. 84-004

Dear Sir:

Transmitted herewith is Licensee Event Report No. 84-004 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 2225 hours on January 19, 1984.

Very truly yours,


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

JDM:de

Enclosure:
Licensee Event Report No. 84-004

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
A. D. Toth, NRC Resident Inspector (901A)

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