

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) DOCKET NUMBER (2) PAGE (3)  
 Washington Nuclear Plant - Unit 2 0 5 0 0 0 3 9 1 7 1 OF 0 1 2

TITLE (4)  
 Failure of Div. I Critical Switchgear Cooling Supply Fan Motor

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											
0	9	3	0	8	4	8	4	1	0	3	0	0	1	0	1	8	8	4		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)

POWER LEVEL (10) 01415	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(a)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)
	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.36(e)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(e)
	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.36(e)(2)	<input type="checkbox"/> 50.73(a)(2)(vi)	<input checked="" type="checkbox"/> OTHER (Specify in Abstract Below and in Text, NRC Form 365A)
	<input type="checkbox"/> 20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(vii)(A)	50.72(b)(1)iA
	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(vii)(B)	
<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)		

LICENSEE CONTACT FOR THIS LER (12)

NAME R. I. Koenigs, Compliance Engineer	TELEPHONE NUMBER 510 931 771-1250
	AREA CODE Ext. 2279

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
X	VH	M	W11210	NO					

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
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ABSTRACT Limit to 1400 spaces or approximately fifteen single-space typewritten lines (16)

Due to equipment motor failure, cooling was lost to the RPS Room #1, Div. I Battery and Battery Charger rooms and Div. I Emergency Bus SM-7. This necessitated a Plant shutdown as the failure could not be repaired within the Technical Specification allotted time.

Corrective action included motor replacement, fan bearing replacement and repair of motor support steel welds.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

Plant Operating Conditions

- a) Power Level - 45%
- b) Plant Mode - 1

Event

WMA-FN-53A supply fuses blew resulting in a loss of cooling to the Reactor Protection System (RPS) Room #1, Division I Battery Room and associated Charger Room and the Critical Switch Gear Room housing bus SM-7. Bypass and Inoperable Status Indication (BISI) alarmed in the control room indicating loss of power to WMA-FN-53A power and/or control circuits. The loss of cooling to the above rooms required the following systems to be declared technically inoperable although the power sources and system functions were never lost:

- o Primary Containment Atmosphere Control (CAC) Div. I
  - o Main Steam Leakage Control (MSLC) Div. I
  - o Low Pressure Core Spray (LPCS)
  - o Residual Heat Removal (RHR) Loop A
  - o Reactor Core Isolation Cooling (RCIC)
  - o Standby Service Water (SSW) A Loop
  - o #1 Diesel Generator
  - \*o Division I 24, 125 and 250 VDC supplies
- \* Per LCO 3.8.2.1 the systems must be restored within 2 hours or the plant must be shutdown to Hot Shutdown within 10 hours. A load rejection test had been scheduled to be performed and this test's resultant SCRAM was used to place the reactor in a Hot Shutdown condition.

All WMA-FN-53A serviced room temperatures were well within the 104°F limit of Technical Specification 3/4.7.8.

Immediate Corrective Action

A work request was initiated and the motor windings of WMA-FN-53A were found shorted to ground. Temporary ventilation was provided for the affected rooms.

Further Corrective Action

The motor was replaced and new fuses were installed. Overload heater tests and motor operability tests were performed following motor replacement.

A rough fan bearing (drive end) was noted during initial restart of WMA-FN-53A. Subsequent vibration analysis confirmed this. Further investigation revealed two cracked motor support welds. Both fan bearings were replaced and the cracked welds were repaired.

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

The motor failure is attributed to premature failure of the motor's insulation system. The specific cause of insulation failure was not determined. A satisfactory vibration analysis had been performed on 8/24/84 with no mechanical problems noted. Motor current values were below the nameplate rated amperage during the initial running of the new motor (prior to fan bearing replacement). The running amperage following fan bearing replacement was identical to that observed prior to bearing replacement.

Safety Significance

Loss of the Division I cooling fan, technically, results in declaring the above listed systems inoperable. Operations personnel in the areas affected confirmed that temperatures remained in the 70°F to 80°F range with little or no detectable heat rise. Control room annunciators for high room temperatures did not alarm, thus indicating room temperatures were below 104°F. The battery room exhaust fan continued to operate providing ventilation of the battery room and adjacent charger room. The Plant was safely shutdown with no additional equipment damage. There was no danger to Plant personnel or to the public.

## Washington Public Power Supply System

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

Docket No. 50-397

October 18, 1984

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

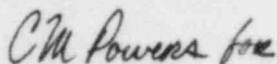
Subject: NUCLEAR PLANT NO. 2  
LICENSEE EVENT REPORT NO. 84-103

Dear Sir:

Transmitted herewith is Licensee Event Report No. 84-103 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 the follow-up report to the verbal notification given at 0410 hours on October 1, 1984.

Very truly yours,



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

JDM:mm

Enclosure:

Licensee Event Report No. 84-103

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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