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 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 95-001-00: on 950113, failed to satisfy single failure criteria for containment isolation function due to electrical separation plate in control panel missing. Replaced missing barrier. W/950207 ltr.

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM

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February 7, 1995
GO2-95-027

Docket No. 50-397

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

Gentlemen:

Subject: **NUCLEAR PLANT WNP-2, OPERATING LICENSE NPF-21,
LICENSEE EVENT REPORT NO. 95-001, REVISION 0**

Transmitted herewith is Licensee Event Report No. 95-001 for the WNP-2 Plant. This voluntary report is submitted due to potential NRC interest and discusses the items of reportability, corrective action taken, and action taken to preclude recurrence.

Should you have any questions or desire additional information, please call me or D.A. Swank at (509) 377-4563.

Sincerely,



J. V. Parrish (Mail Drop 1023)
Vice-President, Nuclear Operations

JVP/BRH
Enclosure

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Washington Nuclear Plant - Unit 2										DOCKET NUMBER (2) 0 5 0 0 0 3 9 7					PAGE (3) 1 OF 3				
TITLE (4) Inability to Satisfy Single Failure Criteria for Containment Isolation Function Due to Missing Electrical Separation Plate in Control Panel																			
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)				
1	13	95	95	-	0	0	1	-	0	0	02	07	95	N/A			0 5 0 0 0		
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR: (11)																
1			20.402(b)					20.405(c)					50.73(a)(2)(iv)					73.71(b)	
			20.405(a)(1)(i)					50.36(c)(1)					50.73(a)(2)(v)					73.71(c)	
POWER LEVEL (10)																			
1 0 0			20.405(a)(1)(ii)					50.36(c)(2)					50.73(a)(2)(vii)					<input checked="" type="checkbox"/> OTHER (Specify in Abstract below and in Text, NRC Form 366A)	
			20.405(a)(1)(iii)					50.73(a)(2)(i)					50.73(a)(2)(viii)A					Voluntary	
			20.405(a)(1)(iv)					50.73(a)(2)(ii)					50.73(a)(2)(viii)B						
			20.405(a)(1)(v)					50.73(a)(2)(iii)					50.73(a)(2)(x)						
LICENSEE CONTACT FOR THIS LER (12)																			
Bruce R. Hugo, Compliance Engineer												AREA CODE 509			TELEPHONE NUMBER 377-8593				
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)		MONTH	DAY	YEAR			
<input type="checkbox"/> YES (if yes, complete EXPECTED SUBMISSION DATE)												<input checked="" type="checkbox"/> NO							
ABSTRACT (16)																			
<p>At 1215 hours on December 19, 1994, with WNP-2 at 100% power, an engineering supervisor performing a control panel walkdown discovered a missing electrical separation barrier plate inside the control room Reactor Core Isolation Cooling (RCIC) control panel. With the barrier missing a short or fire in the panel could disable the isolation capability of the system. The loss of electrical separation was initially believed to be limited to two steam trap drain line valves. On January 13, 1995, further review revealed that other valves in the system were affected, including the redundant steam supply isolation valves.</p> <p>The loss of the ability to isolate the RCIC system with an assumed single failure was initially evaluated as rendering the isolation function inoperable. This event was accordingly reported per 10 CFR 50.72. Further investigation, including a review of Generic Letter 91-18, revealed that the actual status of the isolation function was operable but degraded. This event is being reported voluntarily due to potential NRC interest.</p> <p>Corrective actions included replacement of the missing barrier and a walkdown of other panels. No additional similar problems were found. The cause of the missing plate could not be determined. The event had negligible safety significance due to the low probability of a fault in the affected panel area.</p>																			

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Washington Nuclear Plant - Unit 2	0	5	0	0	0	3	9	7									
									YEAR		SEQUENTIAL NUMBER		REVISION NUMBER				
	95	-	0	0	1	-	0	0	2	OF	3						

TEXT (17)

Event Description:

At 1215 hours on December 19, 1994, with WNP-2 in Operational Condition 1 (Power Operation) at 100% power, a Supply System engineering supervisor performing a control panel [CBD] walkdown discovered a missing electrical separation barrier plate inside the control room Reactor Core Isolation Cooling (RCIC) [BN] control panel. The barrier provides electrical separation between redundant division wiring for valve control and isolation logic for the RCIC system, RCIC High Energy Line Break (HELB) mitigation, and RCIC primary and secondary containment isolation functions [JM]. With the barrier missing a short or fire in the panel could disable the isolation capability of the system.

Although the missing plate was discovered on December 19, the loss of electrical separation was initially believed to be limited to two steam trap [TRP] drain [DRN] line valves [ISV]. On January 13, 1995, further review revealed that other valves [V] in the system were affected, including the redundant steam supply isolation valves.

Immediate Corrective Action:

Since the RCIC control panel is in the front of the continuously manned control room, credit for a continuous fire watch was taken.

A replacement barrier was fabricated and installed on December 22, 1994.

Further Evaluation:

The loss of the ability to isolate the RCIC system with an assumed single failure was initially evaluated as rendering the isolation function inoperable. This event was accordingly reported at 0847 hours on January 13, 1995, via the Emergency Notification System per 10 CFR 50.72 (b)(2)(iii) as "Any event or condition that alone could have prevented the fulfillment of the safety function of structures or systems that are needed to: (C) Control the release of radioactive material . . . "

Further review of this issue, including a review of the guidance in Generic Letter 91-18, revealed that the actual status of the isolation function was operable but degraded. This event is being reported voluntarily due to potential NRC interest.

There were no structures, systems, or components that were inoperable at the start of the event that contributed to the event.

LICENSE EVENT REPORT (LER) TEXT CONTINUATION

Washington Nuclear Plant - Unit 2	05000397													
		YEAR		SEQUENTIAL		REVISION								
		NUMBER		NUMBER		NUMBER								
		95	-	001	-	00	3	OF	3					

TEXT (17)

Root Cause:

Maintenance records were reviewed to identify work that would have required removal of the plate; however, no work meeting this criteria was found. Thus the root cause of this problem, which may have existed since initial plant operation, could not be determined.

Further Corrective Actions:

Other control room panels were examined to find similar problems. No other missing electrical separation barriers were identified.

Safety Significance:

This event had negligible safety significance. Probabilistic Risk Assessment methods were used to estimate the probability of a single failure in the affected panel area disabling the isolation function during an accident. Although the actual distance between cables [CBL] in the separate divisions was at least 3.5 inches, the cables were conservatively assumed to be in contact for the failure probability calculation. The estimated failure rate was 5×10^{-7} failures per demand, equivalent to a negligible 5 percent increase in conditional containment failure probability.

Previous Similar Events:

LER 91-10 described wiring separation errors affecting the containment isolation valves for the reactor recirculation system [AD] flow control valve [FCV] hydraulic supply. Corrective actions included establishment of a fire tour and correction of the wiring error.

LER 92-31 described an electrical separation deficiency resulting from an inadequate design analysis for a design change. Corrective actions included establishment of a fire tour, a review of other circuits for similar problems, and correction of the separation deficiency.

LER 93-30 describes electrical separation discrepancies due to missing cable tray [TY] covers and other similar deficiencies. Corrective actions included walkdowns of cable raceways [FA], correction of deficiencies, and design configuration control program improvements.

These corrective actions would not be expected to have prevented the event described in this report.