NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
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TITLE (4)
HPCS System Inoperable

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	0 8	8 5	8 5	0 2 2	0 0	0 3	2 8	8 5		0 5 0 0 0
										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)						
1	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)		
POWER LEVEL (10)	20.405(a)(1)(i)	50.36(c)(1)	X 50.73(a)(2)(v)	73.71(c)		
1 0 0	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 366A)		
	20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	50.72(b)(2)(iii)		
	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)

NAME	TELEPHONE NUMBER
R. L. Koenigs, Compliance Engineer	AREA CODE 5 0 9 3 7 7 - 1 2 5 0 1 Ext. 2279

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	
A	BI	G - - -	- - - -	N							

SUPPLEMENTAL REPORT EXPECTED (14)

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

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

In the process of replacing nameplate tags on Control Room Panel P-625, on 3/7/85, two HPCS initiation status lamps were damaged. While replacing the damaged lamp sockets at 1330 hours the same day, the High Pressure Core Spray (HPCS) system automatic initiation logic was inadvertently rendered inoperable for two brief periods due to a loss of power to the logic bus. This event was evaluated and determined reportable at 1000 hours on 3/8/85 and reported to the NRC via ENS at approximately 1230 hours per 10CFR50.72(b)(2)(iii).

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

Plant Conditions

a) Plant Mode - 1
b) Power Level - 100%

Event

On 3/7/85, plant personnel accidently sheared off 2 HPCS initiation status lamp sockets while replacing nameplate identification tags on control room back panel P-625. Upon de-terminating wires from the lamp sockets to facilitate replacement, the HPCS minimum flow valve started to cycle and the "Loss of Bus Power" annunciator for HPCS was illuminated. Upon relanding the leads on the new sockets, system status return to normal.

At this point, the Operations crew involved the Technical Staff in the problem and again reviewed system elementary drawings in an attempt to explain the phenomena experienced. When no justification for the conditions could be determined, it was agreed to replace the remaining broken sockets and more closely monitor system relays and component actuations. (It was also agreed that the system could be rendered inop during the repair, however, the Technical Specification Action Statement was not formally entered.) Again, upon de-terminating wires from the socket, certain system relays changed status and the minimum flow valve started to open.

It should be noted that during both periods of maintenance an operator was stationed at the HPCS control room console as added assurance that the system would be available.

Upon completion of the repair, the system configuration was verified to be in its pre-event condition and the HPCS pump was started and verified operable. Subsequently, after securing the pump, the injection valve was stroked, also to verify operability. At 1400 hours on 3/7/85 the repairs were complete and the system had been verified operable.

Investigation into the incident concluded on 3/8/85 at 1000 hours when it was determined, by reference to panel connection diagrams, that the common side of all the system initiation status lights was wired in series on the portion of the circuit closest to the power source. Thus, disconnecting any of the lamp sockets resulted in de-energizing the entire logic bus for the system. (It should be noted that, upon inspection, the affected wiring was found to be in accordance with the panel connection diagrams.) Based on this, the condition was determined reportable due to the system being rendered inoperable the previous day while the two lamp sockets were being replaced.

The cause of this event was the Plant staff's reliance on the vendor elementary drawings to describe the general wiring arrangement prior to performing the maintenance. Subsequent review at the panel connection diagrams revealed that each individual socket was wired in series on the common side of the circuit.

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

Immediate Corrective Action

The logic circuit was returned to its original configuration and the system was tested operable by Plant personnel.

Further Corrective Action

Notification has been subsequently made to all Plant Operators and Maintenance and Technical personnel that elementary drawings should be utilized for general logic and system design description purposes only. For specific details on actual as-wired conditions in the Plant, additional reliance should be placed on Electrical Wiring Diagrams, connection diagrams and approved vendor manuals when appropriate.

Safety Significance

There was no threat to the safety of the Plant, its personnel or the surroundings as a result of this event. The system automatic initiation function was rendered inoperable for only two brief periods (approximately 5 minutes each) while replacing the sockets. Both Division I and Division II ECCS Systems, including ADS, were operable at the time. Operations personnel were stationed at the HPCS control room console during inoperable periods and manual initiation capability of HPCS was also available throughout this event.

Similar Events

None

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

Docket No. 50-397

March 28, 1985

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

Subject: NUCLEAR PLANT NO. 2
LICENSEE EVENT REPORT NO. 85-022

Dear Sir:

Transmitted herewith is Licensee Event Report No. 85-022 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 1230 hours on March 8, 1985.

Very truly yours,

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

JDM:mm

Enclosure:
Licensee Event Report No. 85-022

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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