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)
Washington Nuclear Plant - Unit 2	0 5 0 0 0 3 9 7	1 OF 0 3

TITLE (4)
Reactor Scram

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 5 0 0 0
0 2	1 4	8 5	8 5	- 0 1 4	- 0 0	0 3	1 4	8 5		0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 1 4	20.402(b)	20.405(c)	X 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)
		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)(ii)
		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
	AREA CODE
R. L. Koenigs, Compliance Engineer	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	J J	-	-	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)

During plant startup, a high pressure (1037 psig) reactor scram was initiated due to actuation of the turbine bypass valve 7" Hg low condenser vacuum interlock. This closed the Bypass Valves (BPV's) and switched the Turbine DEH Control System to "BPV Manual" operation. This resulted in loss of Reactor Pressure Vessel (RPV) pressure control and a Reactor Protection System (RPS) actuation form RPV high pressure.

The low vacuum trip test valve was being opened to verify operation of the main turbine low vacuum trip device which had been determined to be the cause of a previous failure to latch the main turbine.

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

Plant Conditions

a) Power Level - 14%
b) Plant Mode - 1

Event

During a plant startup on 2/14/85, while investigating a failure of the main turbine to "Latch", it was found that the main turbine mechanical trip device* linkage was binding in the "Trip" condition. While attempting to determine which of four mechanical trip inputs was initiating the trip signal, the trip device returned to the "Latch" position while the vacuum input (last of the 4 inputs) was manually cycled.

Manually cycling the trip device would not repeat the "Binding in Trip" condition.

In order to ensure that the low vacuum trip device would actually trip the turbine, and to possibly recreate the stuck linkage condition, Technical Staff direction was given to reduce vacuum to the trip device by opening the vacuum trip test valve. Even though an operating procedure discussed this situation it was not recognized at the time that this would result in automatically switching the BPV control to the manual mode.

A reactor Scram occurred due to the pressure (1037 psig) which resulted from the DEH system closing the BPV's and switching control to "BPV Manual". The BPV response was a normal result of the low vacuum input signal which was created by opening the test valve.

Immediate Corrective Action

Plant operators followed normal Scram recovery procedures and stabilized Plant conditions.

Further Corrective Action

- The original vendor turbine design provided the 7" low condenser vacuum interlock in parallel with the turbine vacuum mechanical trip. A plant modification was implemented on 2/15/85, which moved the 7" vacuum interlock pressure switch to the condensor side of the orifice located in the turbine low vacuum trip device sensing line. This prevents actuating the low vacuum trip during testing of the turbine trip mechanism.

- A directive to Technical Staff personnel will be issued to reemphasize the precautions that are required during the investigation of malfunctioning equipment. This directive will address the necessity for personnel to ensure that the consequences of all actions planned to be taken during problem investigations be fully understood prior to implementing the action.

*This device responds to four individual mechanical trip input signals, with a resultant valve opening which in turn trips the main turbine.

- Instructions will be incorporated into Plant procedures to define the scope of investigative efforts that are allowed without obtaining an approved work request.

- Further attempts to diagnose or recreate the binding mechanical turbine trip device condition were inconclusive. This device will be subject to continued investigation activities in an attempt to determine the cause.

Safety Significance

The high pressure Reactor Scram setpoint (1037 psig) was selected such that it can be shown that the system pressure boundary is not endangered by transients such as the event in this report. Reactor vessel pressure did not exceed allowable values during the transient following the scram and no safety relief valves operated. All safety systems functioned as required during the event and no hazard was created to the health and safety of the public or plant personnel.

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 14, 1985

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

Subject: NUCLEAR PLANT NO. 2
LICENSEE EVENT REPORT NO. 85-014

Dear Sir:

Transmitted herewith is Licensee Event Report No. 85-014 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 0018 hours on February 15, 1985.

Very truly yours,

R. Converse for

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

JDM:mm

Enclosure:
Licensee Event Report No. 85-014

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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