

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Washington Nuclear Plant - Unit 2 DOCKET NUMBER (2) 0500003977 PAGE(S) 1 OF 013

TITLE (4) Manual Scram of Reactor Due to High Reactor Coolant Conductivity

EVENT DATE (8)			LER NUMBER (6)		REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES
08	02	84	84	08	3	08	03	08	
									DOCKET NUMBER(S) 050000

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)

OPERATING MODE (9) 2	20.402(b)	20.406(e)	<input checked="" type="checkbox"/>	80.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 001	20.406(a)(1)(i)	50.36(e)(1)	<input type="checkbox"/>	80.73(a)(2)(v)	73.71(c)
	20.406(a)(1)(ii)	50.36(e)(2)	<input type="checkbox"/>	80.73(a)(2)(vi)	<input checked="" type="checkbox"/> OTHER (Specify in Abstract below and in Text, NRC Form 356A)
	20.406(a)(1)(iii)	50.73(a)(2)(i)	<input type="checkbox"/>	80.73(a)(2)(vii)(A)	50.72(b)(2)(ii)
	20.406(a)(1)(iv)	50.73(a)(2)(ii)	<input type="checkbox"/>	80.73(a)(2)(vii)(B)	
	20.406(a)(1)(v)	50.73(a)(2)(iii)	<input type="checkbox"/>	80.73(a)(2)(viii)	

LICENSEE CONTACT FOR THIS LER (12) NAME: R. L. Koenigs, Compliance Engineer TELEPHONE NUMBER: 509377-2501 AREA CODE: 509

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) Ext. 2279

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS
X	SIG	TB	IG	W12	N				

SUPPLEMENTAL REPORT EXPECTED (14) YES (If not, complete EXPECTED SUBMISSION DATE) NO (X) NO EXPECTED SUBMISSION DATE (15) MONTH DAY YEAR

ABSTRACT (Limit to 1400 spaces - i.e., approximately 17 lines of single-space typewritten lines) (16)

A manual scram was implemented at 0437 on 8/12/84 due to high reactor water conductivity. The Plant was in mode 2 at about 1% power at the time of scram as a result of an orderly shutdown from 60% power due to condenser water inleakage.

Actions taken to ameliorate the condenser leak were: reduction of power at the onset of conductivity increase; manual scram when reactor water conductivity was observed to be above the technical specification limit of 10 umho/cm; feedwater input was restricted; cleanup demineralizers were precoated and returned to service; control rod drive water was switched to the condensate storage supply to minimize impurity input; the hotwell was isolated from the condensate storage tanks to minimize cross contamination; and condenser vacuum was broken and circulating water shutoff to reduce further impurity input to the hotwell.

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		8 4	0 8 1 3	0 1 0	0 1 2	OF	0 1 3

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

Plant Conditions

- a) Power Level - 1%
- b) Operational Mode - 2

Event

At about 2345 hours on 8/11/84 while operating at 60% power, reactor water conductivity began increasing. Operations reviewed the upward trend and began an orderly shutdown at 0100 hours on 8/12/84, before the 1.0 umho/cm technical specification limit was reached. At about this time, condensate demineralizer changeout had appeared to limit the upward trend. At approximately 0200 hours the Reactor Water Cleanup System tripped off line and was returned to service in the bypass mode while the new demineralizer pre-coating was taking place. During this period, incorrect conductivity readout existed until the first freshly precoated demineralizer was put in service at about 0400 wherein the conductivity exceeded 10 umho/cm. On confirmation of high conductivity by chemistry, the reactor was manually scrammed at 0437 hours 8/12/84 from mode 2 at 1% power. Subsequent chemistry analyses showed the conductivity to be 39 umho/cm, pH to be 9.85 and chloride to be 2 ppm.

Immediate Corrective Action

Actions were taken to restrict further input of contaminated feedwater and contaminated condensate demineralizer effluent. The cleanup system was precoated as rapidly as possible to get the chemistry parameters under control. Circulating water pumps were shut-off to reduce further leakage input driving force and the hotwell and condensate storage intertie was isolated to avoid cross contamination. Technical staff and maintenance were alerted for condenser leak identification and repair. Cold shutdown was attained within 26 hours at which time chloride and conductivity were within technical specification limits whereas the pH remained high for an additional 12 hours.

Further Corrective Action

One failed condenser tube was found in the center of a tube bundle. The tube was plugged and the system was readied for return to power operation.

A Chemistry Guidance letter has been issued to aid in early conductivity excursion assessment.

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

Safety Significance

The 39 umho/cm conductivity, pH 9.85 and 2 ppm chloride levels were judged to have no major safety significance. High pH accompanied the excursion and pH remained high until the reactor water conductivity and chloride were returned to normal levels. Cold shut-down was attained within 26 hours of the scram event at which time chloride and conductivity were within technical specification limits. pH was returned to specifications within an additional twelve hours. WNP-2 operating time with reactor coolant chemistry outside normal limits is still within the allowable cumulative total per Technical Specifications.

Washington Public Power Supply System

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

Docket No. 50-397

August 30, 1984

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

Subject: NUCLEAR PLANT NO. 2
LICENSEE EVENT REPORT NO. 84-083

Dear Sir:

Transmitted herewith is Licensee Event Report No. 84-083 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 0555 hours on August 12, 1984.

Very truly yours,

J. D. Martin

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

JDM:RLK:mm

Enclosure:

Licensee Event Report No. 84-083

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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