

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
Washington Nuclear Plant - Unit 2

DOCKET NUMBER (2)

05000397

PAGE (3)

1 OF 03

TITLE (4)
APRM Upscale Trips in Hot Shutdown Mode Set Beyond Allowable Technical Specification Values

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									
1	0	2	1	8	4	8	4	1	1	6	0	0	1	1	5	8	4	

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following): (11)			
3		20.402(b)	20.408(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)	0.0	20.408(a)(1)(i)	50.36(e)(1)	50.73(a)(2)(v)	73.71(c)
		20.408(a)(1)(ii)	50.36(e)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text: NRC Form 366A)
		20.408(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.408(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.408(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
R. L. Koenigs, Compliance Engineer	509 377-2501

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	
A	I	G	-	-	-	G	0	8	2	N

SUPPLEMENTAL REPORT EXPECTED (14)

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

ABSTRACT (Limit to 400 spaces - a. add only items in fifteen single-space typewritten lines) (16)

While performing a startup surveillance on the Average Power Range Monitors (APRMs) it was discovered that the neutron flux-high setdown trip was set beyond the Technical Specification limits. The actions required by Technical Specifications were performed by verifying all control rods were inserted and locking the mode switch in shutdown. It was discovered that all APRMs had this particular trip set beyond Technical Specification limits. The trips were reset to allowable values.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Washington Nuclear Plant - Unit 2	0500039784	-1	16	-	00	02	OF 03

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

Plant Conditions

- a) Plant Mode - 3
- b) Power Level - 0%

Event

During the performance of a startup surveillance test on the Average Power Range Monitors (APRMs), two Instrument and Control Technicians discovered that the neutron flux-high setdown trip, with the mode switch not in the run position, was set at 34% on the first APRM checked. This is considered a condition prohibited by Plant Technical Specifications. The allowable trip setpoint is 20%. The technicians informed the Shift Manager who initiated the immediate action.

Immediate Action

All control rods were verified to be inserted and the reactor mode switch was keylocked in the shutdown position. These actions are in accordance with requirements of Action 2 of Table 3.3.1-1 of the Plant Technical Specifications. A Maintenance Work Request was initiated to reset this setpoint. An investigation was also initiated immediately to determine if the problem was generic to all APRMs or just one. This investigation disclosed that all APRMs were set beyond allowable Technical Specification limits for the neutron flux-high setdown trip. The Maintenance Work Request was then revised to reset all the APRM neutron flux-high setdown trips. From the time the first APRM neutron flux-high setdown trip was discovered beyond limits, until all APRMs were properly set, approximately 4 hours elapsed.

Further Corrective Action/Evaluation

An investigation was initiated to determine how the trips became set beyond allowable limits. It was discovered that earlier in the previous day, the APRM fixed neutron flux-high trips, with mode switch in run, had been set up from an overly conservative value of 95% to their normal Technical Specification value of 118%. This had been done as the Plant Power Ascension Testing Program at 75% power had been completed. As a part of the Power Ascension Testing Program, the APRM fixed neutron flux-high trips are set at a value much more conservative than required as an additional safety measure for the initial testing program.

The APRM trip circuitry design is such that setting of the APRM fixed neutron flux-high trip effects the setpoint of the APRM neutron flux-high setdown trip. The opposite does not have this effect. The APRM calibration procedures are correctly written to first set the fixed neutron flux-high trip, with mode switch in run, and then set the neutron flux-high setdown trip, with mode switch not in run. These are sequential sections in the APRM calibration procedures, but it is not clearly stated in the section which sets the APRM fixed neutron flux-high trip that a setting of the trip in that section would effect the neutron flux-high setdown trip and that the subsequent section of the calibration procedure must be performed. Direction had been given by the on-shift Power Ascension Test Director to perform only a partial calibration.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 9/31/85

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

The changing of just the APRM fixed neutron flux-high trip is an action which is performed only during the initial Power Ascension Testing Program. This particular activity will not be performed again during the life of the Plant. However, a caution has been added to the APRM calibration procedures to state that the setting of the APRM fixed neutron flux-high trip will effect the setpoint of the APRM neutron flux-high setdown trip with the mode switch not in run.

Safety Significance

Plant safety was not impacted. The trip setpoint (per Technical Specifications) is 15%, the allowable value (per Technical Specifications) is 20% and observed value was 34%. The basis for the APRM neutron flux-high setdown trip is to preclude exceeding the critical power in a given bundle with reactor pressure less than 785 PSIG. At low flows or low pressures, a thermal power of greater than 50% of rated thermal power would be required to exceed critical power. For added conservatism, a power limit of 25% rated thermal power is set as a power limit for pressure below 785 psig. If the condition had not been discovered, and the Plant was below 785 psig, the 34% setting of these trips would still have initiated a Reactor Scram at a level which was 16% below the thermal power required to exceed critical power.

The Plant was in the run mode when the APRM neutron flux-high setdown trip became set beyond acceptable limits. The Plant is protected from exceeding 50% rated thermal power at less than 785 psig by the MSIV full closure in the run mode. An unrelated reactor scram placed the Plant in hot shutdown with the mode switch placed in the shutdown position.

With the mode switch in the shutdown position, criticality cannot be attained and these power levels cannot be achieved. Predicated on the basis for this particular trip, this trip is not required for Plant safety with the mode switch in shutdown.

Washington Public Power Supply System

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

Docket No. 50-397

November 15, 1984

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

Subject: NUCLEAR PLANT NO. 2
LICENSEE EVENT REPORT NO. 84-116

Dear Sir:

Transmitted herewith is Licensee Event Report No. 84-116 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 0701 hours on October 21, 1984.

Very truly yours,

J. D. Martin for

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

JDM:mm

Enclosure:

Licensee Event Report No. 84-116

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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