

# CATEGORY 1

## REGULATOR INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9703250092    DOC.DATE: 97/03/20    NOTARIZED: NO    DOCKET #  
 FACIL: 50-397 WPPSS Nuclear Project, Unit 2, Washington Public Powe    05000397  
 AUTH.NAME    AUTHOR AFFILIATION  
 BROWNLEE, R.E.    Washington Public Power Supply System  
 BEMIS, P.R.    Washington Public Power Supply System  
 RECIP.NAME    RECIPIENT AFFILIATION

SUBJECT: LER 97-002-00: on 970218, determined that Rod Block Monitor (RBM) calibr values were not set IAW tech specs. Caused by calibr procedures inadequacies. Revised & re-performed RBM channel calibr procedures. W/970330 ltr.

DISTRIBUTION CODE: IE22T    COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 4  
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD4-2 PD	1 1	COLBURN, T	1 1
INTERNAL:	ACRS	1 1	<del>AEOD/SPD/RAB</del>	2 2
	AEOD/SPD/RRAB	1 1	FILE CENTER	1 1
	NRR/DE/ECGB	1 1	<del>NRR/DE/EEEB</del>	1 1
	NRR/DE/EMEB	1 1	NRR/DRCH/HHFB	1 1
	NRR/DRCH/HICB	1 1	NRR/DRCH/HOLB	1 1
	NRR/DRCH/HQMB	1 1	NRR/DRPM/PECB	1 1
	NRR/DSSA/SPLB	1 1	NRR/DSSA/SRXB	1 1
	RES/DET/EIB	1 1	RGN4 FILE 01	1 1
EXTERNAL:	L ST LOBBY WARD	1 1	LITCO BRYCE, J H	1 1
	NOAC POORE, W.	1 1	NOAC QUEENER, DS	1 1
	NRC PDR	1 1	NUDOCS FULL TXT	1 1

NOTE TO ALL "RIDS" RECIPIENTS:  
 PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK,  
 ROOM OWFN 5D-5 (EXT. 415-2083) TO ELIMINATE YOUR NAME FROM  
 DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

FULL TEXT CONVERSION REQUIRED  
 TOTAL NUMBER OF COPIES REQUIRED: LTTR 25 ENCL 25

C  
A  
T  
E  
G  
O  
R  
Y  
  
1  
  
D  
O  
C  
U  
M  
E  
N  
T



WASHINGTON PUBLIC POWER SUPPLY SYSTEM

P.O. Box 968 • Richland, Washington 99352-0968

March 20, 1997  
GO2-97-054

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. 97-002-00**

Transmitted herewith is Licensee Event Report No. 97-002-00 for WNP-2. This report is submitted in response to the reporting requirements of 10CFR73(a)(2)(i)(B), and discusses the items of reportability, corrective action taken, and action taken to preclude recurrence.

Should you have any questions or desire additional information regarding this matter, please call me or Ms. Lourdes Fernandez at (509) 377-4147.

Respectfully,

P. R. Bemis  
Vice President, Nuclear Operations  
Mail Drop PE23

Enclosure

250043

cc: EW Merschoff, NRC RIV  
TG Colburn, NRC  
KE Perkins, Jr., NRC RIV, WCFO  
PD Robinson, Winston & Strawn

NRC Sr. Resident Inspector, MD927N (2)  
INPO Records Center - Atlanta, GA  
DL Williams, BPA, MD399

9703250092 970320  
PDR ADDCK 05000397  
S PDR





# LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) <b>Washington Nuclear Plant - Unit 2</b>										DOCKET NUMBER (2) <b>0   5   0   0   0   3   9   7</b>					PAGE (3) <b>1</b> of <b>3</b>				
TITLE (4) <b>ROD BLOCK MONITOR CALIBRATION VALUES NOT SET IN ACCORDANCE WITH TECHNICAL SPECIFICATIONS</b>																			
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)				
02	18	96	97	-	0	0	2	-	0	0	03	20	97	N/A			0   5   0   0   0		
															0   5   0   0   0				
OPERATING MODE (9)		1		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR: (11)															
POWER LEVEL (10)  0   9   1		—   20.402(b)		—   20.405(c)		—   50.73(a)(2)(iv)		—   73.71(b)											
		—   20.405(a)(1)(i)		—   50.38(c)(1)		—   50.73(a)(2)(v)		—   73.71(c)											
		—   20.405(a)(1)(ii)		—   50.38(c)(2)		—   50.73(a)(2)(vi)		—   OTHER (Specify in Abstract below and in Text, NRC Form 386A)											
		—   20.405(a)(1)(iii)		— X   50.73(a)(2)(i)		—   50.73(a)(2)(viii)A													
		—   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)(ix)													
LICENSEE CONTACT FOR THIS LER (12) <b>R E Brownlee, Licensing Engineer</b>										TELEPHONE NUMBER AREA CODE <b>509</b> <b>377-2085</b>									

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS
SUPPLEMENTAL REPORT EXPECTED (14)					EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR
YES (if yes, complete EXPECTED SUBMISSION DATE)					X   NO				

ABSTRACT (16)

On February 18, 1997 at 1332 it was determined that WNP-2 had not been in compliance with Technical Specification (TS) Table 3.3.6-1 and TS 3.1.4.3 during past plant startups due to the non-conservative calibration of the Rod Block Monitor (RBM) reference downscale instrumentation setpoints. TSs require that RBM instrumentation be operable (not bypassed) at or above 30% rated thermal power. Due to calibration procedure inadequacies, an incorrect RBM reference downscale setpoint resulted in RBM instrumentation not being operable until almost 33% rated thermal power. At time of discovery the RBM instrumentation was determined to be operable because rated thermal power at 91% was significantly greater than the incorrectly calibrated reference downscale setpoint. Immediate corrective action was to revise and re-perform RBM channel calibration procedures to ensure the RBM reference downscale instrumentation setpoint resulted in RBM instrumentation being operable at or above 30% rated thermal power. This issue is being reported in accordance with 10CFR50.73(a)(2)(i)(B) due to operating during past plant startups in a condition prohibited by plant TSs.

The root cause of this event is "Misapplication or Interpretation of Design Inputs," due to the apparent use of a vendor reference document calibration procedure as a basis for the WNP-2 RBM reference downscale calibration procedure.

This event was identified based on a review of RBM channel calibration procedures that was prompted by a review of INPO Network Operating Experience Entry OE 8215, "Rod Block Monitor Low Power Bypass Setpoint Non-conservative at Hope Creek."

# LICENSED EVENT REPORT (LER) TEXT CONTINUATION

Washington Nuclear Plant - Unit 2	0 5 0 0 0 3 9 7	97	-	0 0 2	-	0 0	2	OF	3
-----------------------------------	-----------------	----	---	-------	---	-----	---	----	---

TEXT (17)

## Event Description

On February 18, 1997 at 1332, with the plant operating at 91% power, it was determined that WNP-2 had not been in compliance with TS Table 3.3.6-1 and TS 3.1.4.3 during past plant startups. TS Table 3.3.6-1 and TS 3.1.4.3 require that RBM instrumentation be operable with thermal power greater than or equal to 30% of rated thermal power. A review of WNP-2's RBM channel calibration procedure determined that RBM instrumentation remained bypassed and did not become operable until almost 33% rated thermal power. The RBM channel calibration review was conducted by the plant systems engineering department and was prompted by a review of INPO Network Operating Experience Entry OE 8215, "Rod Block Monitor Low Power Bypass Setpoint Non-conservative at Hope Creek."

## Immediate Corrective Action

Immediate corrective action was to revise and re-perform the RBM channel calibration procedures to ensure that RBM instrumentation will be operable at or above 30% rated thermal power.

## Further Evaluation

Following the review of OE 8215, a review was conducted of the TS surveillance procedures that perform RBM [JC] channel calibrations. It was noted that the procedures for RBM channels "A" and "B" would set the RBM reference downscale bypass setpoint using a decreasing average power range monitor (APRM) signal. This method is similar to the RBM vendor reference documents for adjusting the RBM downscale trip adjustment. The setpoint would be verified to be 30% (+0,-.6%) in the decreasing direction so that as rated thermal power decreased below 30%, the RBM instrumentation would automatically be bypassed. This method of calibration ensures conformance with Note (a) of TS Table 3.3.6-1 which specifies that, "The RBM shall be automatically bypassed when a peripheral control rod is selected or the reference APRM channel indicated less than 30% of RATED THERMAL POWER." However, TS Table 3.3.6-1 and TS 3.1.4.3 state that the applicable operational condition for the RBM instrumentation is Mode 1, with thermal power greater than or equal to 30% of rated thermal power. Due to hysteresis in the RBM reference downscale circuitry, and based on the calibration method as described above, conformance with these additional TS requirements was not possible. With the RBM in operation and plant power below 30% and increasing, the RBM instrumentation would remain bypassed and not become operable until 32.8% for RBM Channel A and 32.1% for RBM Channel B.

At the time of this event, the RBM reference downscale setpoint was based on Note (a) of TS Table 3.3.6-1, which was not conservative with respect to the applicable mode requirements of TS Table 3.3.6-1 and TS 3.1.4.3. The RBM channel calibration procedures have since been revised and the RBM reference downscale setpoints have since been set so that the RBM is not bypassed when rated thermal power is greater than or equal to 30%, and will bypass at less than 30% rated thermal power.



# LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Washington Nuclear Plant - Unit 2	0	5	0	0	0	3	9	7									
									YEAR		SEQUENTIAL NUMBER		REVISION NUMBER				
	97	-	0	0	2	-	0	0	3	OF	3						

TEXT (17)

## Root Cause

The root cause of this event is "Misapplication or Interpretation of Design Inputs." It is suspected that a vendor reference document calibration procedure was used as a basis for the WNP-2 RBM reference downscale setpoint calibration procedure, without considering the effect of electronic hysteresis on the applicable mode setpoint value contained in TSs. A contributing cause was incongruent guidance provided by the TSs. TS Table 3.3.6-1 had two RBM instrumentation bypass criteria such that Note (a) could be misapplied relative to applicable mode requirements of TS Table 3.3.6-1 and TS 3.1.4.3. Furthermore, the RBM reference downscale procedure has undergone five revisions since initial plant startup, representing missed opportunities to correct this error. Recent implementation of WNP-2's "Improved" Technical Specifications (ITS) has eliminated the Note (a) requirement and created a formal TS surveillance requirement to verify the RBM instrumentation is not bypassed when rated thermal power is greater than or equal to 30%.

## Further Corrective Action

A generic review of TS instrumentation requirements, including "applicability" criteria, "notes," and setpoint criteria did not identify similar incongruent guidance that might contribute to a similar procedural inadequacy. As previously noted, WNP-2's TSs were completely revised with the implementation of ITS on March 10, 1997.

## Assessment of Safety Consequences

This event has minimal safety significance. The RBM functions to mitigate the consequences of a control rod withdrawal error at power. The control rod withdrawal error at power is most limiting at rated thermal power and becomes less significant at lower powers. During normal plant operations there is minimal time spent operating in a 30 to 33% power band. This minimal time, coupled with the unlikelihood of a control rod withdrawal error produce an inconsequential risk to the plant's existing Probabilistic Risk Assessment.

## Previous Similar Events

There have been no similar events where incongruent or discordant TS instrumentation operability criteria resulted in a procedure that assured compliance with one of the criteria, but failed to assure compliance with the other. Licensee Event Report (LER) 96-009 reported a problem involving the use of an inappropriate design input for the derivation of instantaneous overcurrent setpoints. This event occurred after the RBM setpoint event. The corrective actions associated with the RBM event, which involved procedure revisions and a review of TSs, would not have precluded the LER 96-009 event.