

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9312150211 DOC. DATE: 93/08/09 NOTARIZED: NO DOCKET #
 FACIL: 50-397 WPPSS Nuclear Project, Unit 2, Washington Public Powe 05000397
 AUTH. NAME AUTHOR AFFILIATION
 PARRISH, J.V. Washington Public Power Supply System
 RECIP. NAME RECIPIENT AFFILIATION
 FAULKENBERRY, B. Region 5 (Post 820201)

SUBJECT: Informs that on 930726, control room received Main Steam Leakage Control Board W Trouble Alarm (S2-2.2) due to power lost to Power Panel E-PP-7BC. Blown fuses in regulating transformer that feeds E-PP-7BC replaced.

DISTRIBUTION CODE: IE01D COPIES RECEIVED: LTR 1 ENCL 0 SIZE: 3
 TITLE: General (50 Dkt)-Insp Rept/Notice of Violation Response

NOTES:

	RECIPIENT ID CODE/NAME	COPIES		RECIPIENT ID CODE/NAME	COPIES	
		LTTR	ENCL		LTTR	ENCL
	PDV PD	1	1	CLIFFORD, J	1	1
INTERNAL:	ACRS	2	2	AEOD/DEIB	1	1
	AEOD/DSP/ROAB	1	1	AEOD/DSP/TPAB	1	1
	AEOD/TTC	1	1	DEDRO	1	1
	NRR/DORS/OEAB	1	1	NRR/DRCH/HHFB	1	1
	NRR/DRIL/RPEB	1	1	NRR/DRSS/PEPB	1	1
	NRR/PMAS/ILPB1	1	1	NRR/PMAS/ILPB2	1	1
	NUDOCS-ABSTRACT	1	1	OE DIR	1	1
	OGC/HDS1	1	1	REG FILE 02	1	1
	RES/HFB	1	1	RGN5 FILE 01	1	1
EXTERNAL:	EG&G/BRYCE, J.H.	1	1	NRC PDR	1	1
	NSIC	1	1			

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK,
 ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION

TOTAL NUMBER OF COPIES REQUIRED: LTR 24 ENCL 24

IA2

RECEIVED
NRC

WASHINGTON REGIONAL PUBLIC POWER SUPPLY SYSTEM

P.O. Box 968 • 3000 George Washington Way, Richland, Washington 99352-0968 • (509) 372-5000

93 AUG 16 AM 11:22

August 9, 1993
G02-93-207

Docket No. 50-397

Mr. B. H. Faulkenberry
Regional Administrator
US Nuclear Regulatory Commission
Region V
1450 Maria Lane
Walnut Creek, CA. 94596

Dear Mr. Faulkenberry:

Subject: WNP-2, OPERATING LICENSE NO. NPF-21
SPECIAL REPORT: REACTOR BUILDING EFFLUENT
MONITORING SYSTEM

Reference: Letter GO2-91-193, dated October 18, 1991, GD Bouchey (SS) to USNRC
Document Control Desk, "Reactor Building Post-LOCA Grab Sampler"

This special report is submitted pursuant to the requirements of WNP-2 Technical Specification section 3.3.7.5, Accident Monitoring Instrumentation. This Technical Specification includes Table 3.3.7.5-1, Item 31, Reactor Building Effluent Monitoring System. Item 31 references Action 81 which states: "With the number of OPERABLE accident monitoring instrumentation channels less than required by the Minimum Channels OPERABLE requirement, either restore the inoperable channel(s) to OPERABLE status within 72 hours, or: . . . In lieu of any other report required by Specification 6.9.1, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status." At 0250 hours on July 29, 1993, the Reactor Building Effluent Monitoring System was inoperable for 72 hours requiring the submittal of this special report.

Event Description

At 0250 hours on July 26, 1993, the control room received a Main Steam Leakage Control (MSLC) Board W Trouble Alarm (S2-2.2). An investigation of the cause of the alarm showed that power was lost to Power Panel E-PP-7BC. This power panel supplied power to the Division 1 MSLC heaters, Reactor Building Effluent Monitoring System, and miscellaneous other instrumentation loads. Further review showed that surveillance test PPM 7.4.6.1.4.1A,

9312150211 930809
PDR ADOCK 05000397
S PDR

1/0
TE-01

SPECIAL REPORT: REACTOR BUILDING EFFLUENT MONITORING SYSTEM

Monthly MSIV Leakage Control System Division 1 Operability Test, was in progress. Power was lost on E-PP-7BC after the MSLC heater circuits were energized for approximately one minute as part of the surveillance test.

Action Taken

Immediate action was taken to declare the equipment affected by the loss of E-PP-7BC inoperable. Sampling was initiated following Offsite Dose Calculation Manual (ODCM) requirements. The 30 day Limiting Condition for Operation for MSLC was entered in accordance with Technical Specification 3.6.1.4. In addition, the LCO for the Technical Specification on Accident Monitoring Instrumentation, Table 3.3.7.5-1, Item 31, Reactor Building Effluent Monitoring System, was entered.

An investigation was initiated by control room personnel to determine the cause of the event. At 0330 hours on July 26, 1993, the supply breaker on two of three fuses was found blown in Regulating Transformer E-TR-7BC/REG that feeds E-PP-7BC. At 0416 hours the fuses were replaced and the circuit was reenergized. Smoke was observed coming from E-TR-7BC/REG and the circuit was deenergized. A maintenance work request was initiated to repair the device.

An engineering investigation was initiated later on July 26, 1993. The Regulating Transformer, E-TR-7BC/REG, was installed during the Spring 1993 refueling outage as part of Plant Modification Request PMR 90-305. This PMR installed a new Reactor Building Effluent Monitoring System (committed to in Reference 1) which placed new loads on E-PP-7BC. Three cryogenic compressors and two air-conditioning units were added to E-PP-7BC. These loads required a voltage regulator to be installed to ensure adequate voltage during accident conditions. The voltage regulator (E-TR-7BC/REG) was specified to have the same 15 KVA rating as the installed Stepdown Transformer, E-TR-7BC. After the modification the Regulating Transformer and E-PP-7BC provided power to previous loads such as MSLC heaters plus new loads introduced by the new Reactor Building Effluent Monitoring System.

The preoperational test for the Reactor Building Effluent Monitoring System was started on June 20, 1993. On that same date the decision was made to turn off the air conditioners, PRM-AC-1 and 2 by opening breakers 16 and 20 on E-PP-7BC. These air conditioners are the largest loads associated with the Reactor Building Effluent Monitoring System as they provide cooling under accident conditions. PRM-AC-1 and 2 were turned off to allow access to the unit for preoperational testing. Monthly surveillance test PPM 7.4.6.1.4.1A, Monthly MSIV Leakage Control System Division 1 Operability Test, was successfully performed on June 28, 1993, while the Reactor Building Effluent Monitoring System air conditioners were turned off. At the end of the preoperational test on July 13, 1993, the air conditioners were placed in operation. In retrospect, at that time MSLC Division 1, the Reactor Building Effluent Monitoring System, and other equipment powered by E-PP-7BC became inoperable because Regulating Transformer E-TR-7BC/REG was undersized and may have failed if called upon to function during accident conditions.

SPECIAL REPORT: REACTOR BUILDING EFFLUENT MONITORING SYSTEM

A further review showed the preoperational test was designed to verify the operability of the stack monitoring equipment. There was no attempt to verify the maximum loading on the power panel or the sizing of the transformers through testing since this verification is provided through the design process. It is not always practical to energize all the existing loads and there is an expectation that the most accurate data is utilized in the sizing calculations.

An evaluation was performed on the reportability of this event under 10 CFR 50.73. This event was not reportable since there were no Technical Specification violations and other reportability criteria were not impacted because of the availability of Division 2 equipment.

Root Cause

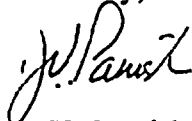
The cause of this event is a design analysis deficiency in that inappropriate data was used for the load calculation on the MSLC heaters and inaccurate data was used in the load calculation for the Reactor Building Effluent Monitoring System. A contributing cause was failure to include actual field data and equipment nameplate data in the design process. Verification of the field data against the design documents, prior to declaring the system operable, may have provided identification of the deficiency before the regulator failed. These deficiencies resulted in an overload of E-TR-7BC/REG by approximately 40%.

A complete root cause analysis is being performed for this event. This analysis identifies additional details regarding this event and recommends additional corrective actions.

Plans and Schedule for Restoring the System to Operable Status

A new regulating transformer has been obtained and a design change package is being prepared. This change will be implemented and the Reactor Building Effluent Monitoring System will be operable prior to restart following the Reactor Scram of August 3, 1993.

Sincerely,



J. V. Parrish (Mail Drop 1023)
Assistant Managing Director, Operations

CLF/bk

cc: Document Control Desk
NS Reynolds - Winston & Strawn
JW Clifford - NRC
DL Williams - BPA/399
NRC Site Inspector - 901A