ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8805250167 DOC.DATE: 88/05/20 NOTARIZED: YES DOCKET #
FACIL:50-000 Generic Docket 05000000
50-261 H.B. Robinson Plant, Unit 2, Carolina Power & Light C 05000261
50-400 Shearon Harris Nuclear Power Plant, Unit 1, Carolina 05000400
AUTH.NAME AUTHOR AFFILIATION
MCDUFFIE,M.A. Carolina Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION
Document Control Branch (Document Control Desk)

SUBJECT: Submits response to Generic Ltr 88-03 re resolution of Generic Safety Issue 83, "Steam Binding of Auxiliary...."

DISTRIBUTION CODE: A063D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 3
TITLE: Resolution of Generic Sfty Issue 93,"Steam Binding of Aux Feedwtr Pum

NOTES:Application for permit renewal filed. 05000400

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD2-1 LA	1	0	PD2-1 PD	1	1
	LO,R	1	1	BUCKLEY,B	1	1
INTERNAL:	ACRS	6	6	ARM/DAF/LFMB	1	0
	NRR OLSHAN,L	1	1	NRR/DEST/PSB 8D	1	1
	NRR/DEST/RSB 8E	1	1	NRR/DOEA 11-E-4	1	1
	NRR/PMAS/ILRB12	1	1	NUDOCS-ABSTRACT	1	1
	OGC 15-B-18	1	0	REG FILE 01	1	1
EXTERNAL:	LPDR	2	2	NRC PDR	1	1
	NSIC	1	1			

TOTAL NUMBER OF COPIES REQUIRED: LTTR 23 ENCL 20

RIDS/ADDS

RIDS/ADDS

CP&L
Carolina Power & Light Company
P. O. Box 1551 • Raleigh, N. C. 27602

MAY 20 1988

M. A. McDUFFIE
Senior Vice President
Nuclear Generation

SERIAL: NLS-88-124

United States Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, DC 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261/LICENSE NO. DPR-23

SHEARON HARRIS NUCLEAR POWER PLANT
DOCKET NO. 50-400/LICENSE NO. NPF-63

RESOLUTION OF GENERIC SAFETY ISSUE 93, "STEAM BINDING OF AUXILIARY FEEDWATER PUMPS" (GENERIC LETTER 88-03)

Gentlemen:

I. Introduction

On February 17, 1988 the NRC staff issued Generic Letter 88-03, which sets forth the resolution of Generic Safety Issue 93, "Steam Binding of Auxiliary Feedwater Pumps." The issue relates to the potential disabling of auxiliary feedwater (AFW) pumps by steam binding resulting from backleakage of main feedwater (MFW) past the isolation check valves between the AFW and MFW systems. The generic letter resolves Generic Issue 93 by perpetuating the recommendations of IE Bulletin (IEB) 85-01 "Steam Binding of Auxiliary Feedwater Pumps." Specifically, the NRC staff requests that licensees:

1. Maintain procedures to monitor fluid conditions within the AFW system each shift during times when the system is required to be operable. This monitoring should ensure that fluid temperature at the AFW pump discharge is maintained at about ambient levels, and

2. Maintain procedures for recognizing steam binding and for restoring the AFW system to operable status should binding occur.

Set forth below are the H. B. Robinson Steam Electric Plant (HBR) and Shearon Harris Nuclear Power Plant (SHNPP) responses to the generic letter.

A063
1/1

II. Discussion

A. H. B. Robinson Steam Electric Plant

The HBR Plant's previous experience with steam binding was one of the factors that led the NRC to issuing of IEB 85-01. The plant was not required to address IEB 85-01[1]; however, in 1984 the AFW check valves were replaced with improved valves and procedural controls were established to ensure that the AFW pumps are stopped prior to closure of their respective discharge valves, thereby enhancing the ability of the check valves to seat. These actions have been successful in preventing recurrence of the steam binding problem.

In regard to the first element of the request, CP&L confirms that procedures which require monitoring the fluid temperature at the AFW discharge each shift are currently in place. Specifically, each shift an auxiliary operator is required to conduct and document a hands-on inspection of the AFW pumps for evidence of backleakage.

Regarding item two of the request, existing procedures do not specifically address actions to be taken should steam binding occur; however, a procedure that will prescribe specific actions will be in place by July 1988. In the interim, operator training on the subject coupled with experience gained from the actual steam binding incidents provide reasonable assurance that appropriate corrective actions would be taken in the event of steam binding.

B. Shearon Harris Nuclear Power Plant

Shearon Harris Nuclear Power Plant, under construction when IEB 85-01 was issued, responded to IEB 85-01 on April 29, 1986. As stated in the response, CP&L made design changes to enhance detection of possible steam binding of AFW pumps. Strap-on thermocouples were installed on the AFW lines to provide continuous monitoring of the system temperature. The data from these thermocouples is routed to the plant process computer and an annunciator on the main control board. Control room operators would receive an alarm on high temperature that would allow sufficient time to take appropriate action.

With regard to item one of the request, SHNPP fluid conditions are monitored continuously through the plant computer, as noted above, instead of through procedures. Carolina Power & Light Company believes this to be an adquate alternative.

Regarding the second element of the request, procedures have been developed and are in effect for recognizing steam binding of AFW pumps. In the event of steam binding conditions, operators would refer to Abnormal Operating Procedure AOP-010, Feedwater Malfunctions, which provides steps for restoring the AFW system to an operable status.

Subsequent to the April 29, 1986 response to IEB 85-01, additional hardware modifications have been made which reduced the likelihood of AFW pump steam binding conditions. The modification consists of the installation of additional check valves in the AFW pump discharge piping.

---

1. IEB 85-01 listed those PWRs having operating licenses that were required to respond. HBR was not included.

III. Conclusion

Carolina Power & Light Company believes that the actions that have been taken or are scheduled, as outlined above, will reduce the probability of AFW pump failure as a consequence of steam binding. If you have any questions, please contact Mr. Pedro Salas at (919) 836-8015.

Yours very truly,

M. A. McDuffie

LWE/PS/che (5415PSA)

cc: Mr. B. C. Buckley
Mr. R. Lo
Dr. J. Nelson Grace
Mr. G. F. Maxwell
Mr. L. Garner (NRC - HBR)

M. A. McDuffie, having been first duly sworn, did depose and say that the information contained herein is true and correct to the best of his information, knowledge and belief; and the sources of his information are officers, employees, contractors, and agents of Carolina Power & Light Company.

Ruby R. Morgan
Notary (Seal)

My commission expires: 11/27/89