

CATEGORY 1

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9804140019 DOC.DATE: 98/04/08 NOTARIZED: NO DOCKET #
 FACIL:50-261 H.B. Robinson Plant, Unit 2, Carolina Power & Light C 05000261
 AUTH.NAME AUTHOR AFFILIATION
 WILKERSON, T.M. Carolina Power & Light Co.
 RECIP.NAME RECIPIENT AFFILIATION
 Document Control Branch (Document Control Desk)

SUBJECT: Provides discussion of status of partial length control rod
 drive mechanism motor tubes at HB Robinson Steam Electric
 Plant, Unit 2 w/regard to cracking experienced at Northern
 States Power Praire Island, Unit 2.

DISTRIBUTION CODE: A001D COPIES RECEIVED: LTR 1 ENCL 0 SIZE: 2
 TITLE: OR Submittal: General Distribution

NOTES:

RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
PD2-1 LA	1 1	PD2-1 PD	1 1
SHEA, J W	1 1		
INTERNAL: FILE CENTER 01	1 1	NRR/DE/ECGB/A	1 1
NRR/DE/EMCB	1 1	NRR/DRCH/HICB	1 1
NRR/DSSA/SPLB	1 1	NRR/DSSA/SRXB	1 1
NUDOCS-ABSTRACT	1 1	OGC/HDS3	1 0
EXTERNAL: NOAC	1 1	NRC PDR	1 1

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE. TO HAVE YOUR NAME OR ORGANIZATION REMOVED FROM DISTRIBUTION LISTS
 OR REDUCE THE NUMBER OF COPIES RECEIVED BY YOU OR YOUR ORGANIZATION, CONTACT THE DOCUMENT CONTROL
 DESK (DCD) ON EXTENSION 415-2083

TOTAL NUMBER OF COPIES REQUIRED: LTTR 13 ENCL 12

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



Carolina Power & Light Company

Robinson Nuclear Plant
3581 West Entrance Road
Hartsville SC 29550

RNP File No: 13510
Serial: RNP-RA/98-0063

APR 08 1998

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

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261/LICENSE NO. DPR-23
PARTIAL LENGTH CONTROL ROD
DRIVE MECHANISM MOTOR TUBES

Sir or Madam:

This letter provides a discussion of the status of partial length control rod drive mechanism (PLCRDM) motor tubes at the H. B. Robinson Steam Electric Plant (HBRSEP), Unit No. 2 with regard to the cracking experienced at the Northern States Power Prairie Island, Unit 2. This letter also informs the NRC of examinations performed on the reactor vessel head during Refueling Outage (RO)-18. HBRSEP, Unit No. 2 is presently in MODE 5 with refueling complete. The unit is scheduled to return to power operation in April 1998.

HBRSEP, Unit No. 2 has seven PLCRDM housings that are of similar design and the same manufacturer as those used in Prairie Island, Unit 2. The HBRSEP, Unit No. 2 PLCRDMs are not used in plant operation, and the drive rods for each PLCRDM have been permanently pinned and locked in the upright refueling configuration. HBRSEP, Unit No. 2 originally had eight PLCRDMs. One of the original eight has previously been cut and capped due to a canopy seal leak. The HBRSEP, Unit No. 2 PLCRDM housing motor tubes were welded with a different heat of weld metal than that which was used in the fabrication of the Prairie Island, Unit 2 housings.

By letter dated March 6, 1998, the Westinghouse Owners Group (WOG) provided responses to NRC items for consideration regarding the Prairie Island, Unit 2 event. Westinghouse concluded that the leak observed at Prairie Island, Unit 2 was due to a pre-existing fabrication flaw (i.e., weld metal hot cracking) within the weld buttering layer of the PLCRDM motor tube dissimilar weld joint. Westinghouse also noted that hot cracking is generally an isolated event. The Westinghouse conclusion that the Prairie Island, Unit 2 cracking was an isolated

9804140019 980408
PDR ADDCK 05000261
P PDR

Availo

event is supported by the recent examination of seven PLCRDM motor tube welds at Diablo Canyon, Unit 2. The Diablo Canyon, Unit 2 motor tubes were identified as having been welded using the same weld metal heat as that used in the fabrication of the Prairie Island, Unit 2 PLCRDM motor tube weld joint that cracked. No reportable indications were found as a result of the Diablo Canyon, Unit 2 examinations.


An inspection was performed during RO-18 of the HBRSEP, Unit No. 2 PLCRDM housings in accordance with the plant program for prevention of boric acid corrosion of Reactor Coolant System (RCS) components that was developed in response to Generic Letter 88-05, "Boric Acid Corrosion of Carbon Steel Reactor Pressure Boundary Components in PWR Plants." This program requires a visual examination of the reactor vessel head each RO for evidence of Reactor Coolant System (RCS) leakage. Close attention was paid to the PLCRDM locations during the examinations. The completed examinations found no evidence of an active leak within the PLCRDM housings.

In the unlikely event that HBRSEP, Unit No. 2 was to experience cracking in a PLCRDM motor tube weld joint, the WOG response states, "...the most likely scenario would be a leak, and no missiles would be produced because of the ductile nature of the materials involved." Such an event would be bounded by the small break Loss-of-Coolant Accident (LOCA) analysis contained in the HBRSEP, Unit No. 2 Updated Final Safety Analysis Report, Section 15.6.2, "Small Break Loss-of-Coolant Accidents."

Plant operators have been advised as to the nature of the Prairie Island, Unit 2 event and potential plant responses.

If you have any questions concerning this matter, please contact me or Mr. H. K. Chernoff of my staff.

Very truly yours,



T. M. Wilkerson

Manager - Regulatory Affairs

ALG/alg

c: Mr. L. A. Reyes, USNRC, Region II
Mr. J. W. Shea, USNRC
USNRC Resident Inspector, HBRSEP