

PRIORITY 1

(ACCELERATED RIDS PROCESSING)

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9412020244 DOC. DATE: 94/11/23 NOTARIZED: NO DOCKET #
 FACIL: 50-315 Donald C. Cook Nuclear Power Plant, Unit 1, Indiana M 05000315
 50-316 Donald C. Cook Nuclear Power Plant, Unit 2, Indiana M 05000316
 AUTH. NAME AUTHOR AFFILIATION
 FITZPATRICK, E. Indiana Michigan Power Co. (formerly Indiana & Michigan Ele
 RECIP. NAME RECIPIENT AFFILIATION
 RUSSELL, W.T. Document Control Branch (Document Control Desk)

SUBJECT: Updates NRC on mitigation of flow-induced vibrational wear
 of bottom mounted instrumentation thimble tubes in
 facilities, including bottom mounted instrumentation thimble
 tube 1994 insp results.

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

NOTES:

RECIPIENT ID CODE/NAME	COPIES LTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTR ENCL
PD3-1 LA	1	PD3-1 PD	1
HICKMAN, J	1		
INTERNAL: <u>FILE CENTER 02</u>	1	NRR/DE/EELB	1
NRR/DRCH/HICB	1	NRR/DRPW	1
NRR/DSSA/SPLB	1	NRR/DSSA/SRXB	1
NUDOCS-ABSTRACT	1	OGC/HDS2	1
EXTERNAL: NOAC	1	NRC PDR	1

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL
 DESK, ROOM P1-37 (EXT. 504-2083) TO ELIMINATE YOUR NAME FROM
 DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTR 13 ENCL ~~12~~ 0

P
R
I
O
R
I
T
Y

1

D
O
C
U
M
E
N
T



AEP:NRC:1059E

Donald C. Cook Nuclear Plant Units 1 and 2
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74
BOTTOM MOUNTED INSTRUMENTATION THIMBLE TUBE
1994 WEAR INSPECTION RESULTS

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

Attn: W. T. Russell

November 23, 1994

Dear Mr. Russell:

In our letter AEP:NRC:1059D, dated September 4, 1992, the NRC staff was informed of the status and plans with regard to the mitigation of flow-induced vibrational wear of the bottom mounted instrumentation thimble tubes in both units at Donald C. Cook Nuclear Plant. The purpose of this letter is to update the NRC staff on this subject.

During the 1992 refueling outages, 15 thimble tubes were replaced in Unit 1 and 22 thimble tubes were replaced in Unit 2. The replacement thimble tubes were chrome plated at axial locations corresponding to the lower core plate and fuel assembly lower nozzle area. During the 1994 refueling outages, an eddy current inspection was performed on all thimble tubes. After one cycle of operation, the chrome plated thimble tubes showed no indications of wear on the plated portions of the tubes. Active indications of wear continued to be observed on the other thimble tubes. Based on these results, we believe that the chrome plating is an effective engineered solution to vibration-induced thimble tube wear.

We now intend to implement a design change to replace all present-design thimble tubes with chrome plated tubes. Although less severe, wear indications have also been observed at axial tube locations corresponding to the lower core support dome and diffuser plate in the lower internals. The new tubes will be chrome plated over a longer length to impede wear from occurring at these additional locations. It is anticipated that this design change will be implemented on both units during the refueling outages scheduled to occur in 1997.

9412020244 941123
PDR ADDCK 05000315
PDR

038

A001
1/0

Mr. W. T. Russell


-2-

AEP:NRG:1059E

In the interim, we will continue to monitor thimble tube wear. Eddy current inspections will be performed on every thimble tube during each refueling outage to continue to evaluate the effectiveness of the chrome plating and to continue to monitor the wear rates of the non-chrome plated tubes. Until the present-design thimble tubes are replaced, wear indications on worn thimble tubes will be evaluated each refueling outage to determine if interim corrective actions (e.g., shortening of the tube to reposition the wear scar or capping of the tube to contain a potential through-wall leak) are necessary to minimize the probability or consequences of a through-wall leak.

We will continue to keep the NRC staff informed of developments in this area.

Sincerely,

for 
E. E. Fitzpatrick
Vice President

eh

cc: A. A. Blind
G. Charnoff
J. B. Martin - Region III
NFEM Section Chief
NRC Resident Inspector - Bridgman
J. R. Padgett