

# PRIORITY 1

(ACCELERATED RIDS PROCESSING)

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9509010129 DOC. DATE: 95/08/28 NOTARIZED: NO DOCKET #  
FACIL: 50-315 Donald C. Cook Nuclear Power Plant, Unit 1, Indiana M 05000315 P  
AUTH. NAME AUTHOR AFFILIATION  
FITZPATRICK, E. Indiana Michigan Power Co. (formerly Indiana & Michigan Ele R  
RECIP. NAME RECIPIENT AFFILIATION  
Document Control Branch (Document Control Desk)

SUBJECT: Responds to 950818 RAI re TS change request for laser welded sleeve repair.

DISTRIBUTION CODE: A001D COPIES RECEIVED: LTR 1 ENCL 0 SIZE: 3  
TITLE: OR Submittal: General Distribution

### NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD3-1 LA	1 1	PD3-1 PD	1 1
	HICKMAN, J	1 1		
INTERNAL:	<del>FILE CENTER</del> 01	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/HDS2	1 0		
EXTERNAL:	NOAC	1 1	NRC PDR	1 1

### NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL  
DESK, ROOM OWFN 5D8 (415-2083) TO ELIMINATE YOUR NAME FROM  
DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 12 ENCL 11



August 28, 1995

AEP:NRC:1129F

Docket Nos.: 50-315

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

Gentlemen:

Donald C. Cook Nuclear Plant Unit 1  
REQUEST FOR ADDITIONAL INFORMATION REGARDING  
LASER WELDED SLEEVE REPAIR (AEP:NRC:1129D)

The purpose of this letter is to respond to your staff's August 18, 1995, request for additional information regarding our technical specification change request for laser welded sleeve repair (letter AEP:NRC:1129D submitted on April 13, 1995). Following are the staff's items and our responses, all of which should be included in the submittal.

Comment No. 1 - A commitment to use enhanced and improved ET inspection techniques as they are developed and verified for use.

Response - As these techniques are developed and verified for use by vendors in accordance with EPRI NP-6201, "PWR Steam Generator Examination Guidelines," enhanced and improved eddy current inspection techniques will be used on any laser welded sleeves (LWSs) installed in the Cook Nuclear Plant (CNP) unit 1 steam generators.

Comment No. 2 - A commitment to perform post-weld heat treatment of installed laser welded sleeves.

Response - Post-weld heat treatment of any LWSs installed in CNP unit 1 will be performed in accordance with the Westinghouse LWS installation procedure. Heat treatment of the laser weld will be conducted at a target temperature of 1400°F as noted on page 8 of Attachment 1 to AEP:NRC:1129D.

010032

9509010129 950828  
PDR ADDCK 05000315  
PDR

ADD 1/0

Comment No. 3 - A commitment to perform additional confirmatory testing to establish the design life of the sleeves and to confirm that leakage detection requirement will be met.

Response - Westinghouse is currently performing long term corrosion testing as part of the Maine Yankee sleeving program (3/4 inch tubing). Results of these tests will be available for use in establishing the design life of LWSs for CNP unit 1.

In addition to laboratory testing, operating experience is also available to support the corrosion resistance of LWSs. About 18,000 LWSs have been in service in Japan for several years and approximately 800 LWSs have been in service at Farley Nuclear Plant, some since 1992. To date, no laser welded sleeved tube failures have been reported. Earlier in 1995, a sample inspection of LWSs at Farley using the Cecco-5 probe indicated no degradation of either the parent tube or sleeve.

WCAP-13088, Revision 3 provides qualification data for the LWS joint and hardroll lower joint for tubesheet sleeves. Both the LWS and lower hardroll joint are leak tight under all conditions referenced by the WCAP and, therefore, will not contribute to off-site dosage. Leak detection requirements will be met using the same procedures and administrative controls that are currently in place for CNP unit 1 as part of the 2-volt interim plugging criteria (IPC) for outside diameter stress corrosion cracking at tube support plate intersections. This program follows the leakage detection and monitoring guidelines outlined in EPRI PR-104788, "PWR Primary-to-Secondary Leak Guidelines." As part of the IPC, the CNP unit 1 technical specifications were previously amended to provide a reduced steam generator primary-to-secondary leak rate limit of 600 gallons per day total through all steam generators and 150 gallons per day through any one steam generator.

Based on these considerations, we do not believe that a separate confirmatory testing program for CNP unit 1 is necessary since a substantial corrosion testing data base already exists for LWSs for 7/8 inch tubing.

Comment No. 4 - A commitment that the inservice inspection and primary-to-secondary leakage limit requirements will be incorporated in a license amendment to account for the installation of sleeves into the steam generators.

Response - Inservice inspection of LWSs will be performed in accordance with the initial sample selection and expansion requirements of technical specification table 4.4-2 using enhanced and improved eddy current techniques. As discussed above, the primary-to-secondary leakage detection requirements established for

the 2-volt IPC will be in place for CNP unit 1. Steam generator leakage limits were previously reduced as part of the IPC.

Comment No. 5 - A license condition that confirms the commitment to long term corrosion testing to verify the long term suitability of SG sleeves placed in service.

Response - As stated in response to Comment No. 3, the industry is currently performing long term LWS corrosion testing and has several years of operating experience with LWSs. We will continue to consider corrosion test results and applicable findings from industry inservice inspection programs to help determine the long term suitability of sleeves placed in service in CNP unit 1. However, we believe the operational status of LWSs should ultimately be based on non-destructive examination (NDE) monitoring on a cycle-to-cycle basis and not solely on laboratory corrosion testing. Results of the long term corrosion testing in progress can be used to help develop meaningful NDE programs for operating LWSs.

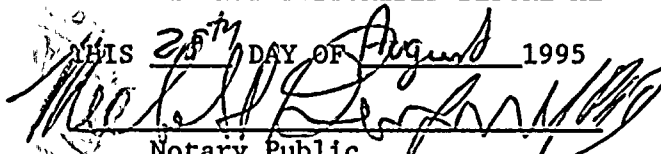
This information does not alter our original request in letter AEP:NRC:1129D submitted on April 13, 1995. The above responses do confirm our commitments and position on the staff's concerns regarding the original submittal.

Sincerely,



E. E. Fitzpatrick  
Vice President

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 28<sup>th</sup> DAY OF August 1995  
  
Notary Public  
Commission expires 3-4-96  
plt

cc: A. A. Blind  
G. Charnoff  
H. J. Miller  
NFEM Section Chief  
NRC Resident Inspector - Bridgman  
J. R. Padgett

