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AUTH. NAME      AUTHOR AFFILIATION  
FITZPATRICK, E.      Indiana Michigan Power Co. (formerly Indiana & Michigan Ele  
RECIP. NAME      RECIPIENT AFFILIATION  
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SUBJECT: Submits interim rept on Westinghouse Alloy 600 SG mechanical  
          plugs, as requested by NRC in response to recent field  
          experience w/Westinghouse Alloy 600 thermally treated  
          mechanical plugs.

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March 17, 1995

AEP:NRC:1096G

Docket Nos.: 50-315  
50-316

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

Gentlemen:

Donald C. Cook Nuclear Plant Units 1 and 2  
INTERIM REPORT ON WESTINGHOUSE ALLOY 600  
STEAM GENERATOR MECHANICAL PLUGS

The following status is provided as requested by the NRC staff in response to recent field experience with Westinghouse Alloy 600 Thermally Treated (TT) mechanical plugs. This letter serves to provide the staff with our intended response to this latest field data and schedule for submitting our action plan to the NRC.

Background

In December 1994, Westinghouse notified us of recent field experience with Alloy 600 mechanical plugs that necessitated a revision to the corrosion algorithm presented in WCAP-12244 Rev. 3. This revision in the corrosion algorithm had the potential to affect our previously developed schedule and action plan for addressing Alloy 600 TT mechanical plugs in service in our steam generators.

Utility Response

No Westinghouse Alloy 600 mechanical plugs are installed in the Unit 2 steam generators and therefore no further actions are required for that unit.

The last of the Westinghouse Alloy 600 TT mechanical hot leg plugs were removed during the Cook Nuclear Plant Unit 1 1992 refueling outage. At present, Unit 1 has a total of 425 Westinghouse Alloy 600 TT mechanical plugs in service in our steam generators, all of which are cold leg plugs. Of these, a total of 89 plugs are present in tubes where plug top release may lead to tube perforation. However, the potential of this occurring is extremely limited since all tubes

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in the steam generators are partial depth rolled tubes. Table 1 (attached) provides the current plant configuration with the installed mechanical plugs.

Westinghouse has revised the plug life algorithm based on the St. Lucie plug experience. This revised algorithm is in an addendum to WCAP-12245, Rev. 3, entitled "Addendum 3 to Steam Generator Tube Plug Integrity Summary Report," which was issued in January 1995. The plug life algorithm contained in the report shows that the year 2057 is the earliest the first heat of cold leg plugs needs to be repaired or removed. The Cook Nuclear Plant Unit 1 operating license expires in 2014; therefore, no further action is required regarding the cold leg plugs.

Sincerely,



E. E. Fitzpatrick  
Vice President

eh

Attachment

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

TABLE 1: ALLOY 600 - COOK UNIT 1 COLD LEG PLUG STATUS

SG NO.	Heat No.-	4523	6323	6135	1989	1989	2387	2387	2387	TOTALS	TOTAL CL PGS	TOTAL CL PGS	
1	Date-	Jul 1987	May 1989	May 1989	Dec 1980	Sep 1983	Jul 1982	Aug 1983	Jun 1985	CL PGS	REMOVED	REMAINING	
11		69	91	0	10	0	0	2	8	180	68	112	
12		86	40	0	0	0	10	3	9	148	31	117	
13		24	93	0	0	0	10	9	6	142	60	82	
14		90	0	57	10	2	0	2	5	166	52	114	
										TOTAL-	636	211	425



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