

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401  
400 Chestnut Street Tower II

84 NOV 15 November 8, 1984  
P. 03

BLRD-50-438/82-64  
BLRD-50-439/82-57

U.S. Nuclear Regulatory Commission  
Region II  
Attn: Mr. James P. O'Reilly, Regional Administrator  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30323

Dear Mr. O'Reilly:

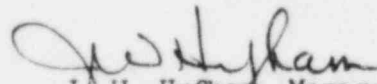
BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2 - DESIGN PROBLEMS WITH STEAM  
GENERATORS - BLRD-50-438/82-64, BLRD-50-439/82-57 - SIXTH INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector D. Quick on August 30, 1982 in accordance with 10 CFR 50.55(e) as NCR BLN NEB 8210. This was followed by our interim reports dated September 28 and November 29, 1982; January 28 and October 19, 1983; and April 25, 1984. Enclosed is our sixth interim report. We expect to submit our next report by March 25, 1985. We consider 10 CFR Part 21 applicable to this deficiency.

If you have any questions, please get in touch with R. H. Shell at FTS 858-2688.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

  
J. W. Hufham, Manager  
Licensing and Regulations

Enclosure

cc: Mr. Richard C. DeYoung, Director (Enclosure)  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Records Center (Enclosure)  
Institute of Nuclear Power Operations  
1100 Circle 75 Parkway, Suite 1500  
Atlanta, Georgia 30339

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ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2  
DESIGN PROBLEMS WITH STEAM GENERATORS  
BLRD-50-438/82-64, BLRD-50-439/82-57  
10 CFR 50.55(e)  
NCR BLN NEB 8210  
SIXTH INTERIM REPORT

Description of Deficiency

At the July 7, 1982, Babcock and Wilcox (B&W) Owner's Group meeting, B&W (Lynchburg, Virginia) indicated that recent inspections of steam generators (SGs) at 177FA B&W operating plants revealed deformation of the auxiliary feedwater (AFW) header and damage to the header supports. There was also evidence of contact between the header and some adjacent SG tubes. Investigations are in progress to determine the cause of these conditions. The Bellefonte header design is similar to the 177FA plant design except that AFW is introduced to the header in the lower portion of the SG (beneath the steam outlet nozzles) whereas the 177FA plant headers are located toward the top of the SG (in the superheat region). The postulated cause of the deficiency was a sudden drop of the header internal pressure resulting from the injection of a cold slug of AFW into the header while the header was dry.

Interim Progress

B&W has submitted and TVA has approved the following revised field change packages (FCPs) since the fifth interim report:

<u>FCP No.</u>		<u>Subject</u>
<u>Unit 1</u>	<u>Unit 2</u>	
226 Revs. 1 and 2	245 Rev. 1	Permanent Installation of Header, Risers, and Restraints
234 Rev. 2	249 Rev. 1	Capping AFW Inlet Nozzles for Original Internal Headers

TVA reviewed and commented on B&W's reports of the results of the analyses of the new AFW piping configuration for units 1 and 2. B&W will incorporate TVA's comments and resubmit the reports for review.

The status of hardware required to complete header installation is as follows: unit 1 header restraints and units 1 and 2 caps for the original AFW inlet nozzles have been received on site. TVA is awaiting delivery of the unit 2 header restraints.