

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

November 29, 1982

BLRD-50-438/82-73  
BLRD-50-439/82-67  
WBRD-50-390/82-112  
WBRD-50-391/82-105

U.S. Nuclear Regulatory Commission  
Region II  
Attn: Mr. James P. O'Reilly, Regional Administrator  
101 Marietta Street, Suite 3100  
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

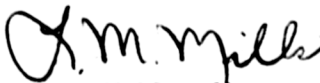
BELLEFONTE AND WATTS BAR NUCLEAR PLANTS UNITS 1 AND 2 - FINS AND HEADS ON  
STAR MODEL QE SPRINKLER HEADS - FIRST INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector  
R. V. Crlenjak on October 26, 1982 in accordance with 10 CFR 50.55(e) as  
NCRs BLN MEB 8208 and WBN MEB 8204. Enclosed is our first interim report.  
We expect to submit our next report on or about April 4, 1983.

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

Very truly yours,

TENNESSEE VALLEY AUTHORITY

  
L. M. Mills, Manager  
Nuclear Licensing

Enclosure

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

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ENCLOSURE

BELLEFONTE AND WATTS BAR NUCLEAR PLANTS UNITS 1 AND 2  
FINS AND HEADS ON STAR MODEL QE SPRINKLER HEADS  
NCR'S BLN MEB 8208 AND WBN MEB 8204  
BLRD-50-438/82-73, BLRD-50-439/82-67;  
WBRD-50-390/82-112, WBRD-50-391/82-105  
10 CFR 50.55(e)  
FIRST INTERIM REPORT

Description of Deficiency

Star Model QE sprinkler heads have been used in fire suppression systems located in various areas of the plants. Two problems associated with the heat collecting fins on these heads have been brought to TVA's attention by Factory Mutual Research Corporation. First, the fins can be easily bent preventing the heads from opening during a fire. The upright sprinkler heads are more susceptible to this type of failure than pendant heads. Second, the center strut on the heads corrode at the mounting point for the heat collecting fins. This produces an insulating effect which can change the head's temperature setpoint and operating time.

Factory Mutual Research Corporation has also retracted their approval of the Star Model QE sprinkler heads on the basis of these problems and has recommended that they be replaced.

Interim Progress

TVA is reviewing the disposition of this nonconformance for adequacy and is determining the cause and actions required to prevent recurrence. The proposed disposition is to replace the Star Model QE sprinkler heads in all areas of the plants with Star Model H sprinkler heads.