

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

June 13, 1983

USNRC REGION II
ATLANTA, GEORGIA
83 JUN 16 P 8:59

BLRD-50-438/83-36
BLRD-50-439/83-32

U.S. Nuclear Regulatory Commission
Region II
Attn: Mr. James P. O'Reilly, Regional Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2 - MAXIMUM TEMPERATURE INSIDE
CONTAINMENT PROVIDED BY BABCOCK & WILCOX - BLRD-50-438/83-36,
BLRD-50-439/83-32 - FIRST INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector
Linda Watson on May 13, 1983 in accordance with 10 CFR 50.55(e) as
NCR BLN NEB 8306. Enclosed is our first interim report. We expect to
submit our next report by August 26, 1983. 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

L. M. Mills

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

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
MAXIMUM TEMPERATURE INSIDE CONTAINMENT PROVIDED
BY BABCOCK AND WILCOX
BLRD-50-438/83-36, BLRD-50-439/83-32
10 CFR 50.55(e)
NCR R-30
FIRST INTERIM REPORT

Description of Deficiency

In the description of nonconformance (NCR) BLN ASB 8301, "Qualification of Protective Coatings," (reported separately) changes to the environmental criteria inside containment as stated in the Bellefonte FSAR were noted. Upon evaluating this NCR TVA personnel found that one criteria, the maximum containment temperature of 286° F, was provided by Babcock and Wilcox, Lynchburg, Virginia, prior to 1977. However, in 1977, TVA questioned the fact that the Loss of Coolant Accident (LOCA) induced temperature of 286° F would be the maximum temperature. Rudimentary hand calculations done by TVA engineers at that time indicated that a Main Steam Line Break (MSLB) could cause a temperature of approximately 390° F. In subsequent correspondence between TVA and B&W in 1978, B&W changed the maximum containment temperature to 425° F. At that time, TVA's Division of Engineering Design (EN DES) personnel failed to identify this discrepancy as a nonconformance as required by Engineering Design Quality Assurance Procedure, EN DES QAP 1.5.

Interim Progress

TVA has written B&W concerning this NCR and has requested that B&W respond by July 15, 1983. During the 1977-78 time period, TVA requested that B&W begin requalification of various safety-related electrical equipment inside containment to the higher MSLB temperature. In addition, TVA has been using the new MSLB temperature in its electrical equipment environmental qualification program (10 CFR 50.49).