

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

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January 13, 1984

BLRD-50-438/82-09

BLRD-50-439/82-09

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:

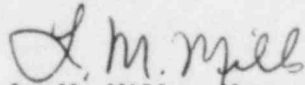
BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2 - TEMPERATURE OF NITROGEN SUPPLY -  
BLRD-50-438/82-09, BLRD-50-439/82-09 - FIFTH INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector D. Johnson on January 14, 1982 in accordance with 10 CFR 50.55(e) as NCR BLN BLP 8201. This was followed by our interim reports dated February 17, April 27, and August 12, 1982 and March 29, 1983. Enclosed is our fifth interim report. We expect to submit our next report on or about August 29, 1986.

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, 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

Babcock & Wilcox Company (Enclosure)  
P.O. Box 1260  
Lynchburg, Virginia 24505  
Attention: Mr. R. J. Ansell

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  
TEMPERATURE OF NITROGEN SUPPLY  
NCR BLN BLP 8201  
BLRD-50-438/82-09, BLRD-50-439/82-09  
10 CFR 50.55(e)  
FIFTH INTERIM REPORT

Description of Deficiency

Nitrogen is used as a cover gas for various safety-related pieces of equipment, such as the reactor coolant system, pressurizer, steam generator, and core flood tanks. B&W document No. 67-1003781-00, "Plant Limits and Precautions," lists the minimum temperature requirement of nitrogen to be supplied to these pieces of equipment. Contrary to the above requirements, the present nitrogen system design supplies nitrogen below the required temperature.

B&W document No. 67-01003781-00 was issued in 1978, well after development of the design of the nitrogen system. Since the document did not directly relate to the nitrogen system design, it was not routed to the nitrogen system designers for their review. This condition went unnoticed until a design review of one of the systems that interfaces with the nitrogen system.

Interim Progress

Procurement specifications for the nitrogen heaters and mechanical installation drawings have been issued. Heaters have been delivered to the plant site and installed. Electrical drawings have been issued, but wiring to the heaters remains to be completed. After completion of analysis of the nitrogen supply system piping by TVA's Civil Engineering Branch to the new higher temperatures, supports on the piping will be redesigned for units 1 and 2. All interfacing systems must be reanalyzed using both rigorous and alternate analysis. Also, new load tables must be established.

Reanalysis and pipe support design involves problems NV-F, SV-R, an SV-T for both units 1 and 2. This work is proceeding under engineering change notice 1390.