TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

NRC REGION II ATLANTA, GEORGIA

May 17, 1982 82 MAY 20 A 9:0

WBRD-50-390/82-15

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:

WATTS BAR NUCLEAR PLANT UNIT 1 - OVERPRESSURIZATION OF CVCS VOLUME CONTROL TANK - WBRD-50-390/82-15 - SECOND INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector D. Quick on January 20, 1982 in accordance with 10 CFR 50.55(e) as NCR 38777. Our first interim report was submitted on February 19, 1982. Enclosed is our second interim report. We expect to submit our next report by August 27, 1982.

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, DC 20555

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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNIT 1
OVERPRESSURIZATION OF CVCS VOLUME CONTROL TANK
NCR 3877R
WBRD-50-390/82-15
10 CFR 50.55(e)
SECOND INTERIM REPORT

Description of Deficiency

The Volume Control Tank (VCT) was overpressurized to a test pressure of 270 lb/in^2 during a hydrostatic test. This overpressurization occurred as a result of the system engineer misreading the design pressure of the tank as 450 lb/in^2 from the data plate on the tank without also verifying this pressure on the manufacturer's data report. Since the hydrostatic test pressure to which the tank was to be subjected was only 270 lb/in^2, the engineer determined that the tank could withstand the pressure. However, in reality, the design pressure for the tank was 75 lb/in^2 and had been tested by the manufacturer to 124 lb/in^2. The subsequent overpressurization caused a visual bulge in the VCT tank's side. The root cause of this deficiency has been identified as personnel error. The engineer misread the design pressure from the tank nameplate, specified the test pressure as 270 lb/in^2, and this error was not detected in the technical review of the test procedure.

Interim Progress

TVA has repeated all Volume Control Tank final inspections required during original manufacture, including radiographc examination, and is in the process of revising the hydrostatic and pneumatic testing procedures.

Westinghouse, the design organization for the tank, will prepare a report of all the inspection details, verification calculations, and any other data necessary to certify that the existing tank meets their design specifications.