

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

September 27, 1982

WBRD-50-390/82-56

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 - SETPOINT PROGRAM FOR OVERPRESSURE
MITIGATING SYSTEM - WBRD-50-390/82-56 - SECOND INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector
R. V. Crlenjak on May 21, 1982 in accordance with 10 CFR 50.55(e) as NCR
WBN NEB 8210. Our first interim report was submitted on June 22, 1982.
Enclosed is our second interim report. We expect to submit our next report
on or about March 31, 1983. TVA is still investigating the applicability
of 10 CFR Part 21 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

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ATLANTA, GEORGIA

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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNIT 1
SETPOINT PROGRAM FOR OVERPRESSURE MITIGATING SYSTEM
NCR MBN NEB 8210
MBRD-50-390/82-56
10 CFR 50.55(e)
SECOND INTERIM REPORT

Description of Condition

The setpoint program provided by Westinghouse (Pittsburgh, Pennsylvania) for the unit 1 Cold Overpressure Mitigating System (OMS) could allow the 10CFR50, Appendix G, limits for reactor vessel fracture toughness to be exceeded in the event of a failure of a single power-operated relief valve (PORV). The OMS utilizes staggered operation of the PORVs so that if the first PORV fails to open to mitigate an overpressure transient, then the second PORV will open at a slightly higher pressure setpoint. For reactor coolant temperatures below 150° F, the setpoint for the second PORV has been chosen such that Appendix G limits can be violated for the mass input events of one or two centrifugal charging pumps operating at maximum flow with isolation of the letdown flow path.

This nonconformance is in violation of FSAR section 5.2.2.4.2.1 and is only applicable to unit 1.

Interim Progress

TVA is procuring solenoid-actuated valves which have faster operating times than the presently installed air-operated valves. The faster action of the solenoid valves will help to minimize pressure overshoot when the valves are actuated to mitigate an overpressure transient. TVA has asked Westinghouse to provide setpoints and a range of allowable valve operating times which will ensure that the overpressure mitigating system performs as described in FSAR section 5.2.2.4.2.1.