

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

May 15, 1981

81-431-200

Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region II - Suite 3100
101 Marietta Street
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2 - IIT CONTROLS OF AWW DAMPERS -
NCR BLN MEB 8001 - FINAL REPORT

On March 19, 1980, Bruce Cochran, NRC-OIE Region II, was informed that the subject nonconformance was determined to be reportable in accordance with 10 CFR 50.55(e). This was followed by our interim reports dated April 17, August 14, September 23, and November 26, 1980. An extension for submitting our final report was discussed with R. V. Crlenjak, by telephone, on May 6, 1981. Enclosed is our final report. We consider 10 CFR Part 21 to be applicable to this nonconformance.

If you have any questions, please get in touch with D. L. Lambert at
FTS 857-2581.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager
Nuclear Regulation and Safety

Enclosure

cc: Mr. Victor Stello, Director (Enclosure) ✓
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

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ENCLOSURE
BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2
ITT CONTROLS OF AWW DAMPERS
NCR BLN MEB 8001
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

"Selection Nomographs" furnished by ITT to size and select actuators for dampers can be interpreted incorrectly. The forces derived from the chart represent only the actual spring or hydraulic forces and do not include the effects of residual hydraulic or friction forces. This means there is a possibility that the ITT actuators supplied with American Warming and Ventilating (AWV) dampers will not meet the specified safety factor with respect to thrust delivered to the damper assembly.

Safety Implications

As reported to TVA by AWV, ITT actuated dampers may be defective. There could be insufficient torque to close a tornado or motor-operated damper. This could lead to the depressurization of a safety-related area in the event of a tornado or the possible failure to isolate a contaminated airstream in the event of an emergency shutdown.

Corrective Action

AWV has evaluated all ITT actuated dampers using statistical minimums of actual actuator output forces supplied by ITT General Controls. The only actuator requiring any corrective action is that on contract 77K71-820434-4, item 439, mark No. 3BA0381-616.

In accordance with ITT General Control Engineering Report No. 703.1.17, "Procedure for Spring Length Measurement and Adjustment - AH/NH 90 Hydramotor Actuator," the actuator springs for item 439, mark No. 3BA0381-616, were measured in the field and adjusted to the specified length required to produce sufficient power to actuate the dampers.