

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

January 4, 1984

WBRD-50-390/83-27
WBRD-50-391/83-27

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:

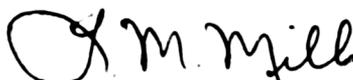
WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - PUMP MOTORS SUPPLIED WITHOUT
SEISMIC ANALYSIS OR OPERABILITY DEMONSTRATED - WBRD-50-390/83-27,
WBRD-50-391/83-27 - THIRD INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector
Linda Watson on April 28, 1983 in accordance with 10 CFR 50.55(e) as NCR
WBN NEB 8304. Interim reports were submitted on May 24 and October 6,
1983. Enclosed is our third interim report. We expect to submit our next
report on or about December 22, 1984.

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

Records Center (Enclosure)
Institute of Nuclear Power Operations
1100 Circle 75 Parkway, Suite 1500
Atlanta, Georgia 30339

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1983-TVA 50TH ANNIVERSARY

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ENCLOSURE

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PUMP MOTORS SUPPLIED WITHOUT SEISMIC ANALYSIS OR
OPERABILITY DEMONSTRATED
NCR WBN NEB 8304
WBRD-50-390/83-27, WBRD-50-391/83-27
10 CFR 50.55(e)
THIRD INTERIM REPORT

Description of Deficiency

The spent fuel pool cooling and cleanup system (SFPCS) has a discrepancy in the equipment supplied by Westinghouse and the Watts Bar FSAR sections 3.2 and 9.1.3. The pumps were supplied with seismic analysis Westinghouse report No. MA-218 without operability demonstrated. The pump motors were supplied without seismic analysis or operability demonstrated. The FSAR states in section 9.1.4.4.1 that the SFPCS heat removal equipment is designed to remain functional for the design basis earthquake and within the required stress limits for the operational basis earthquake and is classified TVA class C seismic category I.

Interim Progress

TVA has received additional information from Westinghouse which indicates that the SFPCS pumps and motors may already have been upgraded to "safeguards" equipment. (Note that the term "safeguards" is a Westinghouse synonym for safety-related. Reference Westinghouse equipment specification No. 9532245.) Documentation has been received from Westinghouse which certifies that the SFPCS pumps and motors are structurally adequate, and that the pumps and motors will function under both operating basis earthquake and design basis earthquake seismic loads combined with the maximum nozzle loads and normal operating loads. The environmental qualification of the motors is still being investigated by TVA. The area in which the motors are located is classified as a harsh environment.

TVA believes that the resolution of this NCR is not required for fuel loading and operation through the first cycle of Watts Bar Nuclear Plant unit 1. The delay in final resolution of this deficiency until the first scheduled refueling outage of unit 1 is acceptable for the following reasons: (1) there will be no spent fuel in the spent fuel pool until after the refueling outage and (2) the existing pumps and motors are seismically qualified and are operational. In the event that the full core would have to be unloaded, it would be highly improbable for a steam line break to occur. The need for environmental qualification of the motors to withstand a harsh environment is predicated upon temperatures of 128°F and relative humidity of 100 percent occurring, in the area of the motors, due to a steam line break.

TVA believes that extension of the resolution of this problem to the first refueling outage for Watts Bar unit 1 is justified.