ATTACHED IS A PART 21 REPORT FROM IE MAIL UNIT - ROOM 559 E/W

PART 21 IDENTIFICATION NO. 81-401-000 COMPANY NAME TVA

DATE OF LETTER 4/8/81 DOCKET NO. 50-390, 391

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LPDR

TERA

ACTION:

PRELIMINARY EVALUATION OF THE ATTACHED REPORT INDICATES LEAD RESPONSIBILITY FOR FOLLOWUP AS SHOWN BELOW:

IE ☐ NRR ☐ NMSS ☐ OTHER ☐

EES

MNY

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S

REV. 8/1/8

TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

81-401-000

April 8, 1981

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:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - ERCW PUMPS - NCR 2461R - FINAL REPORT

The subject condition was initially reported to NRC-OIE Inspector M. Thomas on October 6, 1980, in accordance with 10 CFR 50.55(e). Interim reports were submitted on November 5, 1980, and January 21, 1981. Enclosed is our final response. TVA considers 10 CFR 21 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

ENCLOSURE
WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
ESSENTIAL RAW COOLING WATER PUMPS
NCR 2461R, R1
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

The deficiency was identifed as the result of an inspection of one essential raw cooling water (ERCW) pump to determine the origin of a noise during preoperational testing. The inspection revealed damage to the stud spacers and washers which hold down the antireverse backstop pins. This damage consisted of bent washers and spacers. Subsequent inspection revealed similar damage to the remaining ERCW pumps.

Safety Implications

The antireverse backstop pins are designed to prevent reverse rotation of the pumps due to backpressure developed when the pumps are shut down. Continued use of the ERCW pumps could result in possible failure of the antireverse backstop pins and gear damage to the pumps.

This particular model pump and the deficient antireverse assembly were installed only at the Watts Bar Nuclear Plant. Therefore, there is no safety implication to other TVA facilities.

Corrective Actions

The Tennessee Valley Authority (TVA) has coordinated an investigation with Siemens-Allis (S-A), manufacturer of the subject ERCW pumps, concerning the damage associated with the antireverse backstop pins. The investigation involved several meetings with S-A and the removal and subsequent inspection of one set of damaged washers and stud spacers by S-A.

As a result, S-A has recommended the following actions:

1. Harden the reverse stop plates.
2. Modify the pin carriers.
3. Replace the existing pins.
4. Modify the pin retainer.
5. Replace the damaged stud spacers, washers, and bolts with a new assembly which will perform an identical function.

TVA is in agreement with these actions. The required work will be scheduled so that initially two pumps are repaired and returned to operation, then three, and finally the last three. TVA has scheduled the repair of all eight pumps by September 1, 1981.

In the interim, TVA will remove the entire reverse ratchet assembly for those pumps being operated. The motors can be run indefinitely in this manner. The system check valves will be used to prevent reverse rotation when the pumps are not in operation. As an additional precaution, the manual discharge valves will be closed when the pumps are not in operation to prevent reverse rotation should the check valves fail to operate.