TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

USNRC REGION II
ATLANTA, GEORGIA
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May 25, 1983

BLRD-50-438/82-63, 50-439/82-56
WBRD-50-390/82-92, 50-391/82-88

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:

BELLEFONTE AND WATTS BAR NUCLEAR PLANTS UNITS 1 AND 2 - SHEARED MOTOR PINION KEYS IN LIMITORQUE MOTOR OPERATORS - THIRD INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector D. Quick on August 30, 1982 in accordance with 10 CFR 50.55(e) as NCR GEN NEB 8209. This was followed by our interim reports dated September 28, and November 18, 1982. Enclosed is our third interim report. We expect to submit our next report by September 22, 1983. We consider 10 CFR Part 21 applicable to this deficiency.

If you have any questions concerning this matter, 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

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

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ENCLOSURE

BELLEFONTE AND WATTS BAR NUCLEAR PLANTS UNITS 1 AND 2
SHEARED MOTOR PINION KEYS IN LIMITORQUE MOTOR OPERATORS
NCR GEN NEB 8209
BLRD-50-438/82-63, BLRD-50-439/82-56, WBRD-50-390/82-92, WBRD-50-391/82-88
10 CFR 50.55(e)
THIRD INTERIM REPORT

Description of Deficiency

Westinghouse has informed TVA by their letter WAT-D-5052, dated August 10, 1982, that six sheared motor pinion keys have been found in Limitorque Model SB-0-25 motor operators. These keys transmit torque from the motor shaft through the pinion gear and ultimately to the valve stem drive nut. The sheared keys were of a lower strength steel (1119 material) than is normally used (1018 material) in the size and type of motor operators which failed. Limitorque has no record of what type of pinion key is installed in any particular motor operator. This is why the nonconformance is considered to be generic to all models and sizes of Limitorque motor operators.

Interim Progress

Westinghouse has provided TVA with field change notices to replace the sheared pinion keys at the Watts Bar Nuclear Plant with ones made with the proper 1018 material. TVA and Westinghouse are still investigating the assignable cause of this nonconformance. The final analysis performed by Limitorque and Westinghouse indicated that the failed keys were made of 1113 material. TVA and Westinghouse are unable to determine how and why this material appeared only in the model SB-0-25 motor operators and not in any others. Westinghouse has stated that this problem is unique to Westinghouse Electric-Mechanical Division (WEMD) manufactured valves equipped with Limitorque model SB-0-25 motor operators. However, TVA is withholding final approval of Westinghouse's assessment of the scope of this condition until Westinghouse has provided adequate information documenting how and why this problem is unique to the subject valves and operators.