

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

September 28, 1982

HTRD-50-518/82-19
HTRD-50-520/82-19
YCRF-50-566/82-16
YCRD-50-567/82-16
MLRD-50-438/82-63
BLRD-50-439/82-56
WBRD-50-390/82-92
WBRD-50-391/82-88

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NRC REGIONAL
ATLANTA REGIONAL

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:

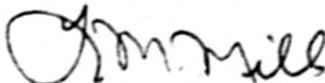
HARTSVILLE, YELLOW CREEK, BELLEFONTE, AND WATTS BAR NUCLEAR PLANTS
UNITS 1 AND 2 - SHEARED MOTOR PINION KEYS IN LIMITORQUE MOTOR OPERATORS -
FIRST INTERIM REPORT

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. Enclosed is our first interim report. We expect to submit
our next report by November 22, 1982.

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, 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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ENCLOSURE

HARTSVILLE, YELLOW CREEK, BELLEFONTE, AND WATTS BAR NUCLEAR PLANTS
UNITS 1 AND 2

SHEARED MOTOR PINION KEYS IN LIMITORQUE MOTOR OPERATORS

NCR GEN NE3 8209

HTRD-50-518/82-19, HTRD-50-520/82-19, YCRD-50-566/82-16, YCRD-50-567/82-16,
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)

FIRST 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 than is normally used 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 stated that exercising the valves will not demonstrate whether the pinion key is sheared since the pinion gear is also secured by a setscrew, and stroking the valve without pressure loading will not necessarily require more torque than the setscrew is able to carry. Limitorque proof tests each motor operator at the factory by loading it until the motor stalls. Since this test is a worst case loading condition, any shearing of the key should have occurred during this test. Therefore, Westinghouse tentatively recommends that the pinion keys be inspected to ascertain whether they have already sheared.

TVA is in the process of tabulating all affected valves which have Limitorque motor operators. TVA will provide more information pertaining to the number of valves and their locations.