



Westinghouse
Electric Corporation

Water Reactor
Divisions

Box 355
Pittsburgh Pennsylvania 15230

August 6, 1982

NS-EPR-2637

Mr. Richard C. DeYoung, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, Maryland 20014

Dear Mr. DeYoung:

On August 4, 1982, Mr. Ed Flack of your staff was notified by Westinghouse via telephone that sheared pinion keys in Limitorque motor operators had been discovered during field modifications/inspections of this equipment. The sheared pinion keys could result in failure of motor operated valves to perform their intended safety function.

The Westinghouse Water Reactor Division Safety Review Committee met on August 3, 1982, to consider this item and concluded that the potential for sheared pinion keys in Limitorque motor operators constituted a Substantial Safety Hazard as defined in 10CFR Part 21 for potentially all Westinghouse plants. The utility/owners of all Westinghouse plants were notified by telephone on August 4, 1982.

In the course of performing field modifications/inspections on Westinghouse supplied valves with Limitorque Model SB-0-25 motor operators, sheared pinion keys were found on six of the operators. These keys are used to secure the pinion gear to the motor shaft which transmits torque to the operator. A metallurgical evaluation of the failed pinion keys performed by Westinghouse indicated that they were of a low carbon steel rather than an available hardened alloy as noted in I&E Information Notice 81-08. Westinghouse was unable to obtain sufficient information as to the adequacy of material properties of pinion keys in other motor operators supplied by Limitorque. The lack of specific information on pinion key material was the basis for concluding that other models of Limitorque motor operators could be affected. Westinghouse is continuing to pursue this item with Limitorque.

8208200051 820806
PDR TOPRP EMVWEST
C PDR

IE-19

Mr. Richard C. DeYoung

-2-

August 6, 1982

Prior to identification of the six sheared pinion keys at one specific site, Westinghouse had performed modifications/inspections of other Model SB-0-25 motor operators at thirty-two other plants and found only one other sheared pinion key, however, hardness checks were not made. The possibility of sheared pinion keys had previously been identified for Limitorque Model SMB-4 motor operators as identified in I&E Information Notice 81-08.

Westinghouse has recommended that all utilities review I&E Information Notice 81-08 which dealt exclusively with sheared pinion keys in Limitorque Model SMB-4 motor operators and recognize that other Limitorque models may also be affected.

If you have any additional questions regarding this item, please contact Mr. R. A. Wiesemann (412-373-5132) of my staff.

Very truly yours,

WESTINGHOUSE ELECTRIC CORPORATION

Robert A. Wiesemann for
E. P. Rahe, Jr., Manager
Nuclear Safety

JJM/anj