

DEFECTIVE BERGEN-PATTERSON HYDRAULIC SHOCK ABSORBERS

INFORMATION

Reference is made to Regulatory Operations Bulletin 73-3, dated July 27, 1973, entitled DEFECTIVE HYDRAULIC SHOCK ABSORBERS AND RESTRAINTS which provided information on known problems with hydraulic shock absorbers and which requested actions, including inspections of installed hydraulic shock absorbers, by certain utilities.

The compiled results of these inspections of Bergen-Patterson shock absorbers, based on telephone reports from affected licensees to the five Regional Offices of the Directorate of Regulatory Operations, reveal that a large percentage of installed Bergen-Patterson hydraulic shock absorbers were not fully operational. In addition, preliminary information indicates that routine repairs, replacing defective seals and filling hydraulic oil reservoirs, may not be an adequate long-range solution to this problem. There is also some indication that deterioration of the affected hydraulic shock absorbers can occur over a relatively short period of time (less than 90 days).

ACTION INDICATED

1. Schedule and conduct a reinspection of Bergen-Patterson hydraulic shock absorbers installed in safety related systems following approximately 45 days and no longer than 90 days after the plant has been at operating temperature subsequent to the inspection performed as requested in RO Bulletin 73-3.
2. The inspection should include:
 - a. Determination of condition of seals.
 - b. Verification of overall integrity of shock absorber assemblies.
 - c. Examination for loss of fluid, fluid leaks, and other signs of distress.
 - d. Recording of piston rod extension and fluid level indicator positions.
3. Inform this office of the planned date for reinspection of the Bergen-Patterson hydraulic shock absorbers.

4. Provide this office with a prompt telephone report of the significant findings of this reinspection. If defective shocks are identified, a written report should be submitted to this office within 10 days following completion of the inspection; if no defective shock absorbers are identified, the written report should be submitted within 30 days following the completion of the inspection.
5. The written report should include:
 - a. As appropriate, a description of the mode of failure, corrective action and tests performed to determine the adequacy of the repair.
 - b. A description of the program for the development and subsequent installation of a permanent modification to the hydraulic shock absorber installation to assure proper operation. The description should include the technical basis for the conclusion that deficiencies in the Bergen-Patterson hydraulic shock absorbers have been resolved.