

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

February 2, 1979

IE Information Notice No. -79-01

BERGEN-PATERSON HYDRAULIC SHOCK AND SWAY ARRESTORS (HSSA)

On December 4, 1978, Rancho Seco Nuclear Generating Station reported the failure of seven Bergen-Paterson HSSA (Snubber) units to lockup in the compression direction and the failure of one additional unit to lockup in the extension direction. These failures were identified during surveillance testing and the affected models included HSSA-3-6, HSSA-10-6 and HSSA-20-6. When the units were disassembled, the licensee observed damage to the poppet valve and seat on the compression side of the valve blocks of the seven units that failed in the compression direction. It was also observed that five of the seven units had the poppet spring entrapped between the poppet and the seat. The licensee attributed the seven failures in the compression direction to abusive handling during compression of the units for installation following testing at the previous refueling outage. The cause of the single failure in the extension direction has not been determined. In addition to exercising greater care in reinstallation, the licensee committed to functionally test all Bergen-Paterson snubbers subjected to transient conditions which cause either physical damage to or significant movement of piping. This testing will include verification of piston movement, lockup and bleed. The Bergen-Paterson Technical Maintenance Manual recommends that additional inspections should be made on units which may have participated in an unusual shock occurrence involving known damage to piping or equipment.

On January 3, 1979, the licensee reported that the decay heat removal system had been subjected to a transient condition in the form of a "water hammer." This transient, caused pipe movement great enough to damage two rigid pipe support wall attachments. The subsequent functional testing of the affected Bergen-Paterson units revealed that one of seven units failed the lockup test. This unit (Model No. HSSA-3-6) was disassembled and damage to the poppet valve and seat was observed.

The damage to the poppet valves is presently being reviewed by both the licensee and Bergen-Paterson. At this time, the cause of damage has not been completely defined nor has appropriate corrective action been determined. Other licensees have reported instances of poppet valve damage; however, the cause and extent of damage are not known at this time.

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This information is provided as an early notification of a possibly significant matter. It is expected that recipients will review the information for possible applicability to their facilities. No specific action or response is requested at this time. If further NRC evaluations so indicate, an IE Circular or Bulletin will be issued to recommend or request specific licensee actions. If you have questions regarding this matter, please contact the Director of the appropriate NRC Regional Office.

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LISTING OF IE INFORMATION NOTICES
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Information Notice No.	Subject	Date Issued	Issued To
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An Information Notice is a new method of communicating items of potential interest to licensees. This item, Information Notice No. 79-01, is the first of this new form of communication.