

UNITED STATES NUCLEAR REGULATORY COMMISSION REGION I 631 PARK AVENUE KING OF PRUSSIA, PENNSYLVANIA 19406

May 14, 1980

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Docket No. 50-213

Connecticut Yankee Atomic Powe. Company ATTN: Mr. W. G. Counsil Vice President - Nuclear Engineering and Operations P. O. Box 270 Hartford, Connecticut 06101

Gentlemen:

The enclosed IE Circular No. 80-12, "Valve-Shaft-To-Actuator Key May Fall Out of Place When Mounted Below Horizontal Axis," is forwarded to you for information. No written response is required. If you desire additional information regarding this matter, please contact this office.

Sincerely,

Frank

Boyce H. Grier Director

Enclosures:

IE Circular No. 80-12 with Attachments
List of Recently Issued IE Circulars

CONTACT: D. L. Caphton (215-337-5346)

cc w/encls:

- R. Graves, Plant Superintendent
- D. G. Diedrick, Manager of Quality Assurance
- J. R. Himmelwright, Licensing Safeguards Engineer

## ENCLOSURE 1

UNITED STATES NUCLEAR REGULATORY COMMISSION OFFICE OF INSPECTION AND ENFORCEMENT WASHINGTON, D.C. 20555 SSINS No.: 6830 Accession No.: 8005050052

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VALVE-SHAFT-TO-ACTUATOR KEY MAY FALL OUT OF PLACE WHEN MOUNTED BELOW HORIZONTAL AXIS

Description of Circumstances:

Tennessee Valley Authority has identified and reported to the NRC a nonconformance on a Bettis Robot-Arm actuator installed on a Pratt butterfly valve at the Sequoyah nuclear plant.

It is reported (ref. attached 10 CFR 50.55(e) report) that a valve became inoperable when the valve-shaft-to-actuator key fell out of place. It is further noted that the orientation of this valve assembly was such that the operator was on the bottom of the valve (below the horizonical axis).

The Pratt butterfly valve furnished with Bettis actuator is designed with a press-fit keyway connection valve/actuator. We believe other manufacturers' connections may be of similar construction and therefore subject to this failure mode.

On May 1, 1980, Pratt Company sent letters to their customers who have these connections (attached list). They recommended that their customers review their installation of such connections, and if the keyway is oriented below horizontal, make one of the following field modifications:

- Add a spacer bushing, or shim plate to fill the void between the top of the shaft and the indicating plate on the actuator.
- Locally upset the end of the valve shaft in the area of the keyway using a hand punch in such a way that the key could not work loose.
- Install new keys of longer length which extend above the end of the valve shaft whereby the key is up to the actuator plate and could not slip down if inverted.

Recommended Action for Licensee Consideration:

We request that all plants make the connections similar to the above des not supplied by those particular man are susceptible to failure, one of t appropriate action should be taken t

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