



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

May 14, 1980

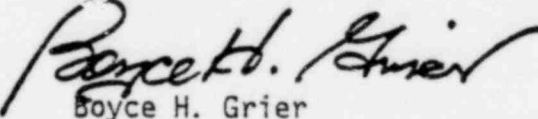
Docket No. 50-29

Yankee Atomic Electric Company  
ATTN: Mr. James A. Kay  
Senior Engineer - Licensing  
25 Research Drive  
Westborough, Massachusetts 01581

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,

  
Boyce H. Grier  
Director

Enclosures:

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

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

cc w/encls:  
H. Autio, Plant Superintendent  
J. E. Tribble, President

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ENCLOSURE 1

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT  
WASHINGTON, D.C. 20555

SSINS No.: 6830  
Accession No.:  
8005050052

IF Circular No. 80-12  
Date: May 14, 1980  
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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 non-conformance 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 horizontal 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:

1. Add a spacer bushing, or shim plate to fill the void between the top of the shaft and the indicating plate on the actuator.
2. 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.
3. 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 described connections not supplied by those particular manufacturers are susceptible to failure, one of the appropriate action should be taken to

DUPLICATE DOCUMENT

Entire document previously  
entered into system under:

AND 8005050052  
No. of pages: 5