



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
230 PEACHTREE STREET, N.W. SUITE 1217  
ATLANTA, GEORGIA 30303

JUL 24 1978

*Central File*  
*50-390*  
*391*

In Reply Refer To:

RII:JPO

50-438, 50-439  
50-259, 50-260  
50-296, 50-518  
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50-567

Tennessee Valley Authority  
Attn: Mr. N. B. Hughes  
Manager of Power  
830 Power Building  
Chattanooga, Tennessee 37401

Gentlemen:

The enclosed Circular 78-15, is forwarded to you for information.

If there are any questions related to your understanding of the suggested actions, please contact this office.

Sincerely,

Dudley Thompson  
Deputy Director

Enclosures:

1. IE Circular No. 78-15
2. List of IE Circulars  
Issued in 1978

*to 2*  
*61*

Tennessee Valley Authority

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cc w/encl:

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

July 20, 1978

IE Circular No. 78-15

TILTING DISC CHECK VALVES FAIL TO CLOSE WITH GRAVITY IN VERTICAL POSITION

The Anchor/Darling Valve Company reported to the NRC on May 23, 1978 a condition at the San Onofre Nuclear Plant where an 8" - 1500# tilting disk check valve failed to close with gravity because it was installed in a vertical rather than a horizontal pipeline. The valve disc was counter weighted to close with the force of gravity when installed in a horizontal pipe. The manufacturer did not determine the reverse flow necessary to close the improperly installed valve. The check valve is located in the Low Pressure Safety Injection System as the first valve inside the containment and may not have closed as required to maintain the containment integrity.

Anchor/Darling has notified all purchasers of such valves and indicated to them possible implications of vertical installations.

It should be noted that similar problems may arise with tilting disc check valves from other manufacturers.

Tilting disc checkvalves can be designed for either horizontal or vertical piping but not for both. Improperly installed tilting disc check valves will not function properly.

All holders of operating licenses or construction permits should be aware of the potential for malfunction of safety-related systems caused by improperly positioned tilting disc check valves. Consideration should be given to the importance of verifying that all such valves in critical systems are installed only in the orientation specified by the manufacturer.

No written response to this circular is required.

If you require additional information regarding this matter, contact the Director of the Regional office.

LISTING OF IE CIRCULARS ISSUED IN 1978

Circular No.	Subject	Date of Issue	Issued To
78-01	Loss of Well Logging Source	4/5/78	All Holders of Well Logging Source Licenses
78-02	Proper Lubricating Oil for Terry Turbines	4/20/78	All Holders of Reactor OLs or CPs
78-03	Packaging Greater Than Type A Quantities of Low Specific Activity Radioactive Material for Transport	5/12/78	All Holders of Reactor OLs, CPs, Fuel Cycle, Priority I Material and Waste Disposal Licenses
78-04	Installation Error That Could Prevent Closing of Fire Doors	5/15/78	All Holders of Reactor OLs or CPs
78-05	Inadvertent Safety Injection During Cooldown	5/23/78	All Holders of Reactor OLs or CPs
78-06	Potential Common Mode Flooding of ECCS Equipment Rooms at BWR Facilities	5/23/78	All Holders of Reactor OLs or CPs
78-07	Damaged Components of a Bergen-Paterson Series 25000 Hydraulic Test Stand	5/31/78	All Holders of Reactor OLs or CPs
78-08	Environmental Qualification of Safety Related Equipment at Nuclear Power Plants	5/31/78	All Holders of Reactor OLs or CPs
78-09	Arcing of General Electric Company Size 2 Contactors	6/5/78	All Holders of CPs

LISTING OF IE CIRCULARS ISSUED IN 1978

Circular No.	Subject	Date of Issue	Issued to
78-10	Control of Sealed Sources Used in Radiation Therapy	6/14/78	All Medical Licensees in Categories G and G1
78-11	Recirculation M-G Set Overspeed Stops	6/15/78	All Holders of BWR OLs or CPs
78-12	HPCI Turbine Control Valve Lift Rod Bending	6/30/78	All Holders of BWR OLs or CPs for plants with HPCI Terry Turbine
78-13	Inoperability of Multiple Service Water Pumps	7/10/78	All Holders of Reactor OLs and CPs except for plants located in: AL, AK, CA, FL, GA, LA, MS, SC
78-14	HPCI Turbine Reversing Chamber Hold Down Bolting	7/12/78	All Holders of BWR OLs or CPs for plants with a HPCI Terry Turbine excepting Duane Arnold and Monticello