

JUL 24 1978

Docket No. 50-263
 Docket No. 50-282
 Docket No. 50-306

Northern States Power Company
 ATTN: Mr. Leo Wachter
 Vice President
 Power Production and System
 Operation
 414 Nicollet Mall
 Minneapolis, MN 55401

Gentlemen:

The enclosed IE Circular No. 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,

James G. Keppler
 Director

Enclosures:

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

cc w/encls:

Mr. L. R. Eliason,
 Plant Manager
 Mr. F. P. Tierney, Jr.,
 Plant Manager
 Central Files
 Director, NRR/DPM
 Director, NRR/DOR
 PDR
 Local PDR
 NSIC
 TIC

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Handwritten signature/initials

OFFICE	Anthony Roisman, Esq., Attorney	RIII	RIII
SURNAME		Fiorelli/dal	Keppler
DATE		7-24-78	7-24-78

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

July 24, 1978

IE Circular No. 78-15

TILTING DISK 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 disk check valves from other manufacturers.

Tilting disk checkvalves can be designed for either horizontal or vertical piping but not for both. Improperly installed tilting disk 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 disk 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

IE Circular No. 78-15
July 24, 1978

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