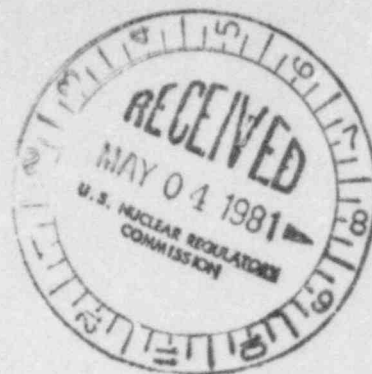




UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76011



April 21, 1981

MEMORANDUM FOR: Those Listed Below

FROM: G. L. Madsen, Chief, Reactor Projects Branch, IE:RIV

SUBJECT: IE BULLETIN NO. 81-02

Subject IE Bulletin has been sent to the following listed licensees. A copy of the IE Bulletin is attached for your information.

Arkansas Power & Light Company
ANO-1 & 2 (50-313; 50-368)

Gulf States Utilities
River Bend (50-458; 50-459)

Nebraska Public Power District
Cooper Nuclear Station (50-298)

Houston Lighting & Power Company
South Texas (50-498; 50-499)

Omaha Public Power District
Fort Calhoun (50-285)

Kansas Gas & Electric Company
Wolf Creek (STN 50-482)

Public Service Company of Colorado
Fort St. Vrain (50-267)

Louisiana Power & Light Company
Waterford-3 (50-382)

Texas Utilities Generating Company
Comanche Peak (50-445; 50-446)

G. L. Madsen
G. L. Madsen, Chief
Reactor Projects Branch

ATTACHMENT:
As stated

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IEB 81-02

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

IE Bulletin No. 81-02
April 9, 1981
Page 1 of 5

FAILURE OF GATE VALVES TO CLOSE
AGAINST DIFFERENTIAL PRESSURE

Description of Circumstances:

As a part of its pressurized water reactor (PWR) Safety and Relief Valve Testing Program, the Electric Power Research Institute (EPRI) conducted limited testing of a number of valves used on PWRs as power-operated relief valve (PORV) isolation or block valves. These tests indicate a number of cases in which certain of these valves failed to fully close under conditions that approximated those of their intended service (i.e., saturated steam at approximately 2,400 psi). The valves that failed to fully close are gate type motor-operated valves that may be used in various safety-related applications in addition to PORV block valves.

Background on EPRI Testing:

The proposed full-scale qualification testing of PORV block valves, with a completion date of July 1, 1982, was first provided to the utilities in a September 5, 1980, draft of NUREG-0737. The item was formally issued, with Commission approval, in NUREG-0737 on October 31, 1980.

The block valve qualification testing was proposed in NUREG-0737 primarily as an additional means of reducing the number of challenges to the emergency core cooling system and the safety valves during plant operation.

In anticipating a request for PWR block valve testing, EPRI decided to make provisions for the installation of block valves between the test steam source and the test PORV in July 1980 at the Marshall test facility. The Marshall test facility is a full-flow steam test facility owned by Duke Power Company. Test PORVs had been carefully selected, with close coordination between EPRI, its consultants and PWR utilities, to assure that PORVs representative of those in service or intended for service would be tested. However, for the block valves that have been tested concurrently, this selection process was not followed because an NRC. Therefore, seven readily primarily to obtain some capability.

For the block valves that time of testing, the pop

DUPLICATE DOCUMENT

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TABLE 1. IDENTIFICATION OF W-EMD MANUFACTURED VALVES AND
DIFFERENTIAL PRESSURE LIMITS FOR VALVE OPERATION

Nominal Valve Size (in.)	W-EMD Model Reference	"VALVE IDENT."*	"VALVE I.D."**	W*** (psid)
3	3GM88	03000GM88	3GM58 or 3GM78 or 3GM88	1500
	3GM88	03002GM88	3GM58 or 3GM78 or 3GM88	1500
	3GM99	03001GM99	3GM58 or 3GM78 or 3GM88	750
4	4GM88	04000GM88	4GM78 or 4GM88	750
	4GM88	04002GM88	4GM78 or 4GM88	750
4	4GM87	04000GM87	4GM77	750
	4GM87	04002GM87	4GM77	750

* This number is found on the yoke-mounted nameplate and occupies the first nine positions of a 24-position number. It is used in evaluating the functional WP requirements.

** This number is found on the yoke-mounted nameplate and occupies the first three positions of a six-position number. Valves sold as spares or replacements may not contain this number.

*** Pressure below which valve will close (as shipped).

Notes: A "position" may contain more than one character. The three-position "VALVE I.D." number consists of five digits in the three positions; for example, 3 GM 78.

All nameplates have "VALVE IDENT." numbers, but those sold as spares or replacements may not have "VALVE I.D." numbers. The "VALVE IDENT." number includes the manufacturer's model reference, and the "VALVE I.D." number is a reference to the valve system application. The "VALVE I.D." number also appears on Westinghouse valve indexes and system flow diagrams. There is no reference to the "VALVE IDENT." number on these indexes or flow diagrams.

TABLE 2. PARTIAL LIST OF PLANTS WITH
 AFFECTED VALVES MANUFACTURED BY W-EMD

"VALVE IDENT." Number			
			04000GM88
			04002GM88
	03000GM88		04000GM87
	03002GM88	03001GM99	04002GM87
Plant			
Operating plants (supplied as spares or replacements except as noted):			
Beaver Valley 1	X		
Connecticut Yankee	X		
Farley 1, 2		X*	
Indian Point 2	X		
Kewaunee	X		
North Anna 1, 2	X		
Oconee 1, 2, 3	X		X
San Onofre 1	X		
Surry 1, 2	X	X	X
Zion 1, 2			X
Nonoperating plants (supplied as original scope of supply except as noted):			
Beaver Valley 2	X		X
Braidwood 1, 2	X		X
Byron 1, 2	X		X
Callaway 1, 2	X		X
Comanche Peak 1, 2	X		X
Harris 1, 2, 3, 4		X	X
Jamesport 1, 2		X	X
Marble Hill 1, 2	X		X
San Onofre 2, 3		X**	
Seabrook 1, 2		X	X
South Texas 1, 2			X
Summer	X		X
Vogtle 1, 2		X	X
Watts Bar 1, 2	X		X
Wolf Creek	X		X

*Transferred from inventory at another plant.

**Spares or replacements.

Attachment 3
April 9, 1981
IEB 81-02

TABLE 3. PARTIAL LIST OF PLANTS WITH
AFFECTED VALVES MANUFACTURED BY BW-NVD

Plant	NVD-P/N
Arkansas Nuclear One, Unit 2	75460
Bellefonte	79190
Palo Verde	77910

RECENTLY ISSUED IE BULLETINS

Bulletin No.	Subject	Date Issued	Issued To
80-22	Automation Industries, Model 200-520-008 Sealed- Source Connectors	9/11/80	All radiography licensees
80-23	Failures of Solenoid Valves Manufactured by Valcor Engineering Corporation	11/14/80	All power reactor facilities with Operating License (OL) or Construction Permit (CP)
80-24	Prevention of Damage Due to Water Leakage Inside Containment (October 17, 1980 Indian Point 2 Event)	11/21/80	All power reactor facilities with Operating License (OL) or Construction Permit (CP)
Sup. 4 Bulletin 80-17	Failure of Control Rods to Insert During A Scram at a BWR	12/18/80	To specified BWRs with an Operating License (OL) and All BWRs with a Construction Permit (CP)
80-25	Operating Problems with Target Rock Safety-Relief Valves at BWRs	12/19/80	All BWR facilities with Operating License (OL) and specified near term Operating License (OL) BWR facilities and all BWRs with a Construction Permit (CP)
81-01	Surveillance of Mechanical Snubbers	1/27/81	All power reactor facilities with an Operating License (OL) and to specified facilities with Construction Permit (CP)
80-17, Sup. 5	Failure to Control Rods to Insert During a Scram	2/13/81	All BWR facilities with Operating License (OL) or Construction Permit (CP)
81-01 Rev. 1	Surveillance of Mechanical Snubbers	3/4/81	All power reactor facilities with an Operating License (OL) and specified facilities with a Construction Permit (CP)

Enclosure