

# SHAW, PITTMAN, POTTS & TROWBRIDGE

A PARTNERSHIP OF PROFESSIONAL CORPORATIONS

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WRITER'S DIRECT DIAL NUMBER

October 29, 1982

822-1090

Gary J. Edles, Esquire  
Chairman  
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Washington, D.C. 20555

Dr. John H. Buck  
Atomic Safety and Licensing Appeal  
Board  
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Washington, D.C. 20555

Dr. Reginald L. Gotchy  
Atomic Safety and Licensing Appeal  
Board  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

In the Matter of  
Metropolitan Edison Company  
(Three Mile Island Nuclear Station, Unit No. 1)  
Docket No. 50-289 (Restart)

Administrative Judges Edles, Buck and Gotchy:

Please find enclosed a copy of a letter dated October 15, 1982, from J. H. Taylor of Babcock & Wilcox to R. C. DeYoung of the NRC Staff, providing information about a potential safety concern with respect to postulated chattering (rapid cycle valve opening and closing) of pressurizer code safety valves with ring settings significantly different from those used in the EPRI Safety and Relief Valve Test Program. The letter reports that B&W has recommended that actual ring settings be determined and, if necessary, adjusted to values indicated by the EPRI test results.

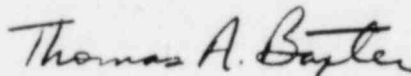
SHAW, PITTMAN, POTTS & TROWBRIDGE  
A PARTNERSHIP OF PROFESSIONAL CORPORATIONS

Gary J. Edles, Esquire  
Dr. John H. Buck  
Dr. Reginald L. Gotchy  
October 29, 1982  
Page Two

Also enclosed is a copy of a letter dated October 28, 1982, from H. D. Hukill of GPU Nuclear Corporation to J. F. Stolz of the NRC Staff, reporting that the safety valve ring settings at TMI-1 have been adjusted to the EPRI ring settings.

This correspondence is being provided to the Appeal Board and the parties because the information might be considered to have some bearing on the issues pending in this proceeding.

Respectfully submitted,



Thomas A. Baxter  
Counsel for Licensee

TAB:jah

Enclosures

cc: per Certificate of Service

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the Matter of	)	
	)	
METROPOLITAN EDISON COMPANY	)	Docket No. 50-289
	)	(Restart)
(Three Mile Island Nuclear	)	
Station, Unit No. 1)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing letter from Licensee to the Atomic Safety and Licensing Appeal Board with attachments were served this 29th day of October, 1982, by deposit in the U.S. mail, first class, postage prepaid, to the parties identified on the attached Service List.

Thomas A. Baxter  
Thomas A. Baxter, P.C.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the Matter of	)	
	)	
METROPOLITAN EDISON COMPANY	)	Docket No. 50-289
	)	(Restart)
(Three Mile Island Nuclear	)	
Station, Unit No. 1)	)	

SERVICE LIST

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Nuclear Power Generation Division

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(804) 385-2000

October 15, 1982

Dr. R. C. DeYoung, Director  
Office of Inspection & Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Dear Dr. DeYoung:

The purpose of this letter is to inform you about a potential safety concern for which B&W has completed a preliminary examination. This concern may have general applicability to plants beyond those B&W designed units described in this letter. Dresser has provided B&W, Combustion Engineering and Westinghouse, in a telecopy sent 10/14/82, their description of this concern. The NRC is generally aware of the results of the EPRI Safety & Relief Valve Test Program, and is aware of one facet of the specific concern through a report made by Duke Power Co., 10/14/82, to your Region II office in Atlanta, Ga. concerning the operability of the pressurizer code safety valves on Oconee 2.

The data examined that led to this concern was for Dresser Industry, Alexandria, Louisiana, Models 31739A and 31709NA code safety valves. These models and the intermediate valve Model 31759A are in use or planned for use on all B&W designed plants except VEPCO, North Anna 3, and Toledo Edison, Davis Besse 1. See attached list of Dresser valves used on B&W plants.

Recent review of the EPRI test data indicate that for certain combinations of lower and middle ring settings the safety valves could chatter (rapid cycle valve opening and closing). Two consequences of valve chattering have been noted during valve testing: a reduction in safety valve capability to relieve pressure while chattering and subsequent damage to valve internals. During the EPRI tests, this chattering phenomenon was noted only with valves with long inlet piping configurations. However, present understanding of the effect of ring settings on valve operation indicates that even with the valves mounted directly on pressurizer nozzles, valve chatter could be postulated for a combination of ring settings significantly different from those used during EPRI tests.

Also for certain ring setting and back pressure conditions, design capacity may not be obtained at the design accumulation of three percent. Actual ring settings for Dresser safety valves are not known for all valves in the B&W operating plants. B&W has recommended to those utilities with operating plants that actual ring settings be determined and, if necessary, adjusted to values indicated by EPRI Safety & Relief Valve Test results. Back pressures used with these ring settings should be determined from plant specific data.



Dr. R. C. DeYoung  
Page 2  
October 15, 1982

A preliminary assessment of FSAR analyses of moderate frequency events for B&W plants indicates only a small percent (approx. 10%) of the capacity of one safety valve is needed for safe operation. Therefore, interim operation with even a small portion of the capacity of one valve appears reasonable.

The B&W Owners Group has an established committee to handle concerns resulting from the EPRI Safety and Relief Valve Tests. The specific course of action to resolve this issue will be determined by each utility in conjunction with the Owners Group to assure that valve performance fulfills the design function.

If you have any question concerning this report, please call me at (804) 385-2817.

Very truly yours,

THE BABCOCK & WILCOX COMPANY

*T. L. Balderson for*  
*J. H. Taylor*  
J. H. Taylor, Manager  
Licensing Services

JHT/TAB/bkh

cc: R. B. Borsum - B&W Bethesda  
A. G. Hosler - Supply System  
L. M. Mills - TVA  
T. G. Sullivan - Consumers Power Co.  
F. R. Miller - TED  
K. S. Canady - Duke Power  
J. J. Mattimoe - SMUD  
D. G. Raasch - SMUD  
~~D. G. Stear~~ - GPUN  
J. M. Griffin - AP&L  
E. C. Simpson - FPC  
E. G. Wallace - GPUN

DRESSER PRESSURIZED CODE SAFETY VALVES

Duke Power Co. 31739A	Oconee 1, 2, & 3	2 1/2" Model No.
General Public Utilities Nuclear	TMI-1 TMI-2	2 1/2" Model 31739A 3" Model 31759A*
Florida Power Corporation	Crystal River 3	2 1/2" Model 31739A
Arkansas Power & Light	ANO-1	3" Model 31759A*
Sacramento Municipal Utility District	Rancho Seco	3" Model 31759A*
TVA	Bellefonte 1 & 2**	6" Model 31709NA
Washington Public Power Supply System	WNP-1**	6" Model 31709NA
Consumers Power Co.	Midland 1 & 2**	2 1/2" Model 31739A
Toledo Edison Co.	Davis Besse 1	Dresser valves not used
VEPCO	North Anna	Dresser valves not used

NOTES

\*Not tested in EPRI Safety & Relief Valve Test Program. Test results for 2 1/2" and 6" Dresser valves intended to envelop 3" valve.

\*\*Plants under construction.





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TELEX 84-2386  
Wireless Direct Dial Number

October 28, 1982  
5211-82-260

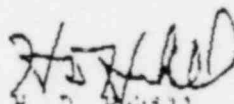
Office of Nuclear Reactor Regulation  
Attn: J. F. Stolz, Chief  
Operating Reactor Branch No. 4  
Division of Licensing  
Washington, D.C. 20555

Dear Sir:

Three Mile Island Nuclear Station, Unit 1 (TMI-1)  
Operating License No. DPR-50  
Docket No. 50-289  
Safety Valve Ring Setting

On October 15, 1982 Babcock and Wilcox notified the NRC of a potential safety concern related to valve chatter for RCS code safety valves (Dresser 31739A) with ring setting significantly deviant from those used in the EPRI Safety and Relief Valve Tests. For TMI-1, the safety valve ring settings were adjusted to the EPRI ring settings during August 1982 when the valves were set point pressure verified at Wyle Laboratories prior to being installed at TMI-1 on a short inlet configuration. A review of the EPRI tests using the EPRI ring settings indicates that the tests showed satisfactory valve performance and the test parameters bound TMI-1 plant specific conditions (including backpressure).

Sincerely,

  
H. D. Hukill  
Director, TMI-1

RDH:LWH:vjf  
cc: R. Jacobs  
R. C. Haynes