

PART 21 IDENTIFICATION NO. SP-427-000 COMPANY NAME TVA  
 DATE OF LETTER 5/11/81 DOCKET NO. SO-439 (Babcock + Wilcox)  
 DATE DISTRIBUTED \_\_\_\_\_ ORIGINAL REPORT  SUPPLEMENTARY

DISTRIBUTION:

REACTOR (R)

IE FILES

EES - *Mills*

REGIONS I, II, III, IV, V

VENDOR BR. R-IV

LOEB / MPA MNB 5715

AEOD MNB 7602  
 CEOD/DMU MNB 7217  
 NRR/DOE

NRR/DSI

NRR/DST

NRR/DOL

ASLBP E/W 450

FUEL CYCLE &   
 MATERIALS (M)

IE FILES

AD/FF/MSI

REGIONS I, II, III, IV, V

VENDOR BR. R-IV

NMSS / FCMS SS-396

LOEB / MPA MNB 5715

AEOD MNB 7602  
 CEOD/DMU MNB 7217  
 ASLBP E/W 450

SAP/SP MNB-7210A

SAFEGUARDS (S)

IE FILES

AD/SG

AD/ROI

REGIONS I, II, III, IV, V

VENDOR BR. R-IV

NRR/DOL

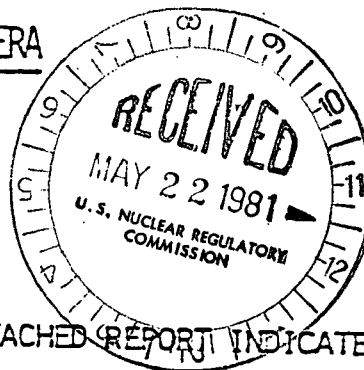
NMSS / SG SS-881

LOEB / MPA MNB 5715

AEOD MNB 7602  
 CEOD/DMU MNB 7217  
 ASLBP E/W 450

CENTRAL FILES 016  
 CENTRAL FILES (CHRON)  
 PDR  
 LPDR  
 TERA

CENTRAL FILES 016  
 CENTRAL FILES (CHRON)  
 CENTRAL FILES SS-396  
 PDR  
 LPDR  
 TERA



~~CENTRAL FILES 016~~  
 CENTRAL FILES (CHRON)  
 PDR  
 LPDR  
 TERA

ACTION:

PRELIMINARY EVALUATION OF THE ATTACHED REPORT INDICATES LEAD RESPONSIBILITY FOR FOLLOWUP AS SHOWN BELOW:

IE

NRR

NMSS

OTHER

EES

81-427-000

# Babcock & Wilcox

a McDermott company

Nuclear Power Generation Division

3315 Old Forest Road  
P.O. Box 1260  
Lynchburg, Virginia 24505  
(804) 384-5111

May 11, 1981

Mr. Victor Stello, Jr., Director  
Office of Inspection and Enforcement  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Stello:

This letter is intended to provide supplemental information to the Nonconformance Report #1315 made by the Tennessee Valley Authority on February 12, 1981, to NRC-OIE Inspector, R.W. Wright, concerning a decay heat cooler outlet valve deficiency at Bellefonte Unit 2. The valve stem and plug are attached by a threaded connection that is keyed by a pin through the plug and stem. The hole for this pin was mis-machined allowing the possibility of failure of the locking pin to stay in place. Should the stem and plug become unscrewed, it would result in either failure of valve to open or inadvertent closure with the possible whole or partial loss of low pressure safety injection.

TVA has provided a final written report of this concern to Mr. James P. O'Reilly, Director of Region II, NRC OI&E in Atlanta, Georgia 3/13/81, Report No. BLRD 50-439/81-20. A copy of this report was also sent to you. This report (attached) identifies the valve as a WKM valve supplied by Babcock & Wilcox for use in the decay heat removal system.

B&W has examined this concern and found that this type of valve with this stem to plug connection and keying was supplied only as decay heat cooler outlet valves to the following projects for which B&W is the NSS supplier:

Washington Public Power Supply System	WNP 1 - 2 valves WNP 4 - 2 valves
T V A	Bellefonte 1 - 2 valves Bellefonte 2 - 2 valves
Portland General Electric	Pebble Springs - 2 valves
TOTAL	- 10 valves

This type valve was not supplied for any of the operating plants using the B&W NSS.

**Babcock & Wilcox**

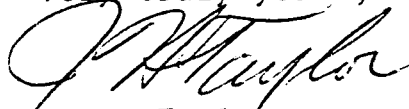
-2-

Mr. Victor Stello, Jr.  
May 11, 1981

All of these valves have been visually inspected while disassembled. The mis-machining was reported only on the one valve on Bellefonte 2. We consider this to be an isolated case as far as B&W supplied valves are concerned and are pursuing corrective action with the vendor on that basis.

If we can be of any further help in this matter, please contact me.

Very truly yours,



J. H. Taylor  
Manager, Licensing

JHT/fw

cc: R. B. Borsum - B&W - Bethesda Office  
J. McFarland - B&W - Lynchburg, VA.  
R. L. Boyer - B&W - Lynchburg, VA.  
D. C. Winterich - B&W - Lynchburg, VA.

March 13, 1981

BLRD-50-439/81-20

Mr. James P. O'Reilly, Director  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Region II - Suite 3100  
101 Marietta Street  
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

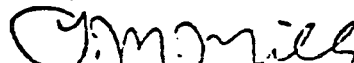
BELLEFONTE NUCLEAR PLANT UNIT 2 - DECAY HEAT REMOVAL VALVE DEFICIENCY -  
BLRD-50-439/81-20 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. W. Wright on February 12, 1981, in accordance with 10 CFR 50.55(e) as NCR 1315. Enclosed is our final report. We consider 10 CFR Part 21 to be applicable to this deficiency.

If you have any questions concerning this matter, please get in touch with D. L. Lambert at FTS 857-2581.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

  
L. M. Mills, Manager

Nuclear Regulation and Safety

## Enclosure

cc: Mr. Victor Stello, Jr., Director (Enclosure)  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Mr. James McFarland (Enclosure) ✓  
Senior Project Manager  
Babcock & Wilcox Company  
P.O. Box 1260  
Lynchburg, Virginia 24505

ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNIT 2  
DECAY HEAT REMOVAL VALVE DEFICIENCY  
BLRD-50-439/81-20  
FINAL REPORT

Description of Deficiency

The control valve for the decay heat cooler outlet, supplied by B&W for use in the Decay Heat Removal System, was determined to be deficient. The deficiency resulted from the lower stem, valve plug, and lock pin being mismachined. This mismachining results in the failure of the lock pin to stay in place during normal operation of this valve.

Safety Implications

The failure of this valve could result in the failure of the Decay Heat Removal System, which would allow the reactor core to be inadequately cooled, thus affecting the safe operations of the plant.

Corrective Actions

The valve (2DH-HV3B) must be returned to WKM for evaluation of casting defects (reference NCR's BLN NEB 8002 and 1316). If the casting defects can be repaired, WKM shall also resolve NCR 1315 by replacing the lower stem, valve plug, and lock pin. Otherwise, WKM will provide a replacement valve.