



**Consumers
Power
Company**

James W Cook

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February 28, 1983

82-06 #4

Mr J G Keppler, Regional Administrator
US Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND NUCLEAR COGENERATION PLANT
DOCKET NOS 50-329 AND 50-330
B&W STEAM GENERATOR AUXILIARY
FEEDWATER HEADER DESIGN CHANGE
FILE: 0.4.9.62, 0505.2 SERIAL: 20720

References: J W Cook letters to J G Keppler, Same Subject:

- (1) Serial 17504, dated May 26, 1982
- (2) Serial 17560, dated August 6, 1982
- (3) Serial 19403, dated November 1, 1982

This letter provides another 50.55(e) report concerning the B&W steam generator auxiliary feedwater header.

The installation of the external header at Midland is proceeding. The internal headers have been stabilized and on Unit 2 the header is in place awaiting the welding of the two sections.

Since the last report, B&W has submitted a preliminary Part 21 report on the equipment supplied from a non-approved vendor. Attached is a copy of this report. The equipment which has been supplied for Midland is under evaluation. The 600 pound RF/WN flanges will be replaced. The flanges that were provided by Tube Line Corp have been returned to B&W and are no longer at the site. The end caps and tees are being evaluated and material samples will be taken shortly. B&W has confirmed with reasonable assurance that sufficient controls existed at Tube Line Corp such that the material in the plants is of the heat indicated on the material certifications. The material samples taken from Midland will be matched to the heat numbers by chemical analysis. One sample of each of the heats has been tested at B&W's Barberton, Ohio plant as discussed in the attached letter. The material for Midland will be recertified in accordance with the ASME Code, paragraph NCA-3867.4, subparagraph (e).

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Another report, either interim or final, will be issued on or before May 31, 1983.

James W. Cook

JWC/DTP/lr

Attachment: B&W (J H Taylor) letter to NRC (R C DeYoung), dated January 10, 1983, Part 21 Report

CC: Document Control Desk, NRC
Washington, DC

RJCook, NRC Resident Inspector
Midland Nuclear Plant

CBechhoefer, ASLB Panel
FPCowan, ASLB Panel
JHarbour, ASLB Panel
AS&L Appeal Panel
MMCherry, Esq
MSinclair
BStamiris
CRStephens, USNRC
WDPaton, Esq, USNRC
FJKelley, Esq, Attorney General
SHFreeman, Esq, Asst Attorney General
WHMarshall
GJMerritt, Esq, TNK&J
JRajan, USNRC
RHernan, USNRC (2)
DFJudd, B&W

Babcock & Wilcox

a McDermott company

Attachment to
Serial 20720
Nuclear Power Generation Division

January 10, 1983

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

Mr. R. C. DeYoung, Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. DeYoung:

This letter provides an initial, Part 21 report of a potential safety concern B&W has under evaluation. The letter also confirms and in certain areas supplements a telephone report made by B&W to Mr. George Lanik on January 7, 1982. The concern is that fittings supplied for use in piping for auxiliary feedwater (AFW) systems at certain B&W designed plants were provided from a source not approved as a nuclear equipment supplier.

The fittings were provided to B&W through Capitol Pipe and Steel Products Co. of Bala Cynwyd, Pennsylvania by Tube Line Corporation. They have been used in the construction of the new auxiliary feed headers on steam generators at Duke Power Company's Oconee 3 plant and Toledo Edison Company's Davis Besse 1 plant. They are also being used in auxiliary feedwater headers on steam generators presently being installed at Consumers Power Company's Midland 1 & 2 plants.

The specific fittings can be identified as follows:

B&W Contract 600-5293-50-10

B&W Purchase Order No. 631249JT - Item 2 - 20 pcs. 6" S/80 Caps
SA 234 WPB, Heat #NDUC

B&W Purchase Order No. 631252JT - Item 1 - 10 pcs. 6" S/80 Tees
SA 234 WPB, Heat #NDLG

B&W Purchase Order No. 631250JT - Item 1 - 80 pcs. 3" 600# RF/WN Flanges
SA 105, Heat #'s EKP & EUUA

The material was shipped to B&W through Capitol Pipe by Tube Line Corporation from their Houston, Texas facility, an unapproved nuclear source. Specifically this facility has not been audited and approved to supply fittings for nuclear use by the ASME, Capitol Pipe or B&W under the requirements of ASME Section III, NCA 3800. Capitol Pipe has advised us that Tube Line Corp. does have a nuclear approved facility in Long Island City, New York. That approval is based on an audit by Capitol Pipe of the Long Island City plant. The material certifications actually provided by Tube Line for the fittings at issue indicated that they were manufactured at the Long Island City facility, when in fact they were not.

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Tube Line Corp. purchased the caps, tees and base flange forgings from three different suppliers. The only actual work done on these fittings by Tube Line was the finished machining of the flanges. The material certification data on the fittings was provided by the Tube Line suppliers with the information being transferred to Tube Line forms prior to transmittal.

B&W has reviewed these material data and has concluded that the as-furnished material certifications met the purchase specification. Because the pieces were shipped from an unapproved source, B&W and Capitol Pipe will attempt to confirm with the Tube Line Corp. suppliers the validity of the material certification data and will attempt to establish that sufficient controls were present during processing to conclude that the material in the plants are of the heats indicated.

B&W has also initiated destructive testing to confirm acceptable wall thicknesses and to confirm the physical and chemical data in these material certifications. One sample from each of the four heats has been tested from material presently on-hand at our Barberton, Ohio plant. The end caps and tees have been shown to be in accordance with the chemical and physical data reported on the material certifications. The test results for the two heats of 3" flange material show that one heat is lower in manganese and that both heats exhibit lower strength than reported. Two additional flanges from each heat are being destructively evaluated. A review of the applicable stress analysis with lower material strength flanges is currently underway.

As a further check, B&W is re-examining the results of field radiographic tests by Duke of the Oconee 3 headers and similar shop tests done in our Barberton, Ohio plant of the Davis Besse 1 headers. The purpose of this re-examination is to confirm the absence of indications in the base metal adjacent to the welds.

It is also noted that the AFW headers at Oconee 3 and DB-1 containing these fittings have been successfully pressure tested prior to operation. In addition the AFW systems were full flow tested with no apparent leakage.

It is B&W's understanding that Capitol Pipe & Steel Products Co. provided on December 6, 1982, to Mr. Ronald C. Haynes, of the NRC, Region I Office of Inspection and Enforcement in King of Prussia, Pennsylvania written information on this concern.

B&W has notified the affected plants of this concern and is keeping them informed of the progress of our evaluations.

B&W will provide its next report on this concern as soon as significant new information is available. If you have any questions, please contact me or Mr. T. L. Baldwin (804) 385-2817 or 385-3214.

Very truly yours,

T. L. Baldwin
for J. H. Taylor
J. H. Taylor
Manager, Licensing

JHT:msl

cc: R. B. Borsum - Bethesda Office