



UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545

March 23, 1973

YELLOW

5-227/230

THIS DOCUMENT CONTAINS  
POOR QUALITY PAGES

Judd L. Bacon, Esq.  
Consumers Power Company  
212 W. Michigan Avenue  
Jackson, Michigan 49201

Dear Mr. Bacon:

Enclosed herein is a copy of 5 pages from a compliance report for Browns Ferry which contains material on the Midland plant. We request that your company and Babcock & Wilcox review this for proprietary material. If any material is believed to be proprietary, we request that you make the claim following to the extent possible the procedures set forth in the Commission Memorandum dated June 6, 1972 in the ECCS proceeding (Docket No. RM-50-1).

We request that you review this material as quickly as possible.

Sincerely,

*Mary M. Thorkelson*  
Mary M. Thorkelson  
Attorney, Office of General Counsel

Enclosure:  
As Stated

cc: (w/o enclosure)  
Harold Reis

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SECTION III

Prepared By: B. T. Resnick, RO:RCB:HQ

Additional Subjects Inspected, Not Identified in Section I, Where No Deficiencies or Unresolved Items Were Found

1. General

As part of the routine vendor inspection, an inspection was made of selected documents covering material certifications, material receipt inspections, operation processes, welding qualifications, procedures, and controls for the Midland 1 and 2 pressurizers, B&W contract numbers 620-0012-59-10 and 620-0013-59-10, respectively.

2. Status of the Two Pressurizers

The inspector was advised that the two pressurizers are partially completed to about the same degree of completion. The shell courses including the heater belts are welded into a single assembly. The top heads are partially completed with the manway ring, spray nozzle, pressurizer relief nozzle, vent nozzle and lifting lugs welded into the head.

The inspector noted that no manufacturing work was being performed on the pressurizer and that the shell courses and top heads were in storage. The shell courses are stored outside the manufacturing building. The inspector was advised that the shells are protected from the elements by a coating of Tectyl on the metallic surfaces and are further shrouded with several layers of protective plastic and the seams taped. The heads are stored inside the manufacturing building without any protective coatings.

B&W inspections of the stored assemblies are required to be conducted in accordance with procedure 12-2QT-106 Revision 0. However, inspection of the records indicated that a deviation notice had been issued specifying inspection every 90 days. The inspector was advised that the assemblies are being inspected every 30 days but only the 90-day inspection was documented. B&W advised the inspector that a letter will be sent to shop inspectors specifically requiring documentation of the 30-day inspection findings.

3. Records Reviewed

a. Material Certifications

An examination of the following certified material test reports established that they were in accordance with applicable ASME/ASTM specifications, code cases, and B&W Specification for Pressurizer, Contract No. 620-0012, 13 for Consumers Power Company, approved by B. B. Cardwell, Jr., dated January 21, 1971:

- (1) Upper Heater Belt Forging, Specification ASTM A-508 Class 1, modified by code case 1332-4, and ASME Code Section III, Article 3 modified.\* Bethlehem Steel Report No. 438, dated March 24, 1970.
- (2) Lower Heater Belt Forging, Specification ASTM A-508 Class 1, modified by code case 1332-4, and ASME Code Section III, Article 3 modified.\* Bethlehem Steel Report No. 473, dated April 2, 1970.
- (3) Manway Forging. ASTM A-508 Class 1, as modified by code case 1332-4, as modified by customers purchase order.\* Bonney Forge and Foundry SO No. 0592-0 dated December 30,

The material certifications were signed and dated by responsible personnel of the supplier and B&W. The transition temperature curves, attached to Bethlehem Steel Report No. 438 were identified as Lower Heater Belt Forging, although the material markings for the material furnished under report No. 438 identified the material as Upper Heater Belt Forging. B&W contacted the supplier and determined that this was a typographical error, B&W will obtain a revised report with proper identification.

b. Cladding Thickness

A review of the following records pertaining to cladding thickness of the upper head indicated that the upper head thickness was in conformance with B&W Standard Equipment Specification for Pressurizer Vessel, Specification No. CS-3-32/0570, dated May 15, 1970:

\*(Edition not specified.)

B&W S-102Y dated September 1, 1970, on quality control specification for UT inspection for defects and/or bond or cladding. B&W acceptance ticket No. 038659 indicated that the cladding thickness was verified and accepted. These documents were signed and dated by responsible B&W personnel.

c. Welding of Nozzles and Manway Into Upper Head

An examination was made of records for manufacturing processes including operation sequences No. 235 and No. 240, and applicable welding procedures, WP-33 Alt 1 Revision 2, dated February 25, 1970, the Record of Procedure and Qualification Test - QC 2E4- 122 dated February 5, 1970, and Weld Control Record - S/N A 019141. From this examination it was established that the upper head forging, originally purchased for use in B&W contract 620-009, and carrying that identification number, is being used in the contract number 620-012 pressurizer.

d. Transfer of Identification Marks

An inspection of shop process sheets and sketches indicated that identification marks were satisfactorily placed on each segment of the upper and lower forgings were welded and segmented.

e. Deviation Notices

Deviation notices, signed and dated by responsible personnel, indicated acceptance of (1) a reduced welding gap between the manway and head; and (2) a reduced welding gap between the lifting lug and head.

The records examined also indicated that the weld preheat temperature was maintained in the range of 150° - 200°F. The specified weld preheat temperature range was 150°F. A maximum interpass temperature of 500°F was specified while the actual (documented) interpass temperature during manufacture was maintained between 150° - 250°F. These temperatures are in accordance with the welding procedure qualification range and in conformance with ASME Section IX, paragraph Q-11, V-5.

Subsequent to the inspection, the inspector determined by a telecon

with the vendor, that the records indicating the actual qualification weld preheat and interpass temperatures were on file in the B&W Barberton Ohio Plant. This item will be verified during a subsequent inspection.



SECTION IV

Additional Subjects Inspected, Not Identified In Section I, Where No Deficiencies Or Unresolved Items Were Found

1. General

Review of the reactor vessel flange material certification was the only item examined during this inspection.

Details of Subjects Discussed In Section I

2. Material Qualification for the Reactor Vessel Flange (Serial No. 7-214-51-1)

The corrected material certification dated April 20, 1972, for this component states in part: " --- All test coupons were stress relieved prior to testing at 1125°F + 25°F, held for 60 hours and furnace cooled at below 600°F. This item is considered resolved.