



**Wisconsin Electric** POWER COMPANY  
231 WEST MICHIGAN, MILWAUKEE, WISCONSIN 53201

October 26, 1978

Mr. J. G. Keppler, Director  
Office of Inspection and Enforcement,  
Region III  
U. S. NUCLEAR REGULATORY COMMISSION  
799 Roosevelt Road  
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

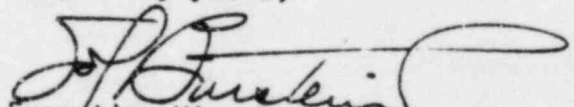
DOCKET NOS. 50-266 AND 50-301  
REACTOR VESSEL WELDMENT INFORMATION  
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

Your letter of September 29, 1978, transmitted IE Bulletin No. 78-12 for our information and action. This bulletin is entitled "Atypical Weld Material In Reactor Pressure Vessel Welds" and requested that we supply certain information concerning the fabrication of the reactor vessel full penetration welds.

As you are aware, the Point Beach reactor vessels are older vessels and were fabricated at a time when the technology in respect to fracture toughness of materials had not been extensively developed. Due to the subsequent development of 10 CFR 50, Appendix G and its associated requirements, a fracture toughness evaluation of the welds in the Point Beach reactor vessels has been performed and the results reported to the NRC in my letter of March 4, 1977. In addition, we have periodically advised the NRC of the results of our reactor vessel material surveillance capsule test program whenever a capsule has been withdrawn and tested. As no "atypical" weldment information has developed during the course of these programs for the Point Beach reactor vessels, we do not consider all of the actions required by Bulletin 78-12 to be applicable to the Point Beach reactor vessels.

The attachment to this letter supplies the requested information, to the extent available, which has not been reported previously for the Point Beach reactor vessels. Please contact us if additional information is required.

Very truly yours,

  
Executive Vice President

Sol Burstein

Attachment

cc: USNRC, Office of Inspection and Enforcement,  
Division of Reactor Construction Inspection  
Washington, D.C. 20555

OCT 30 1978

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ATTACHMENT TO LETTER RESPONDING  
TO NRC BULLETIN IE 78-12  
POINT BEACH NUCLEAR PLANT

The purpose of this attachment is to respond to the information requested in the subject bulletin as it is deemed to apply to the Point Beach reactor vessels. The questions have been paraphrased but are kept in the same order as presented in the bulletin.

1. Conduct a record search and submit information identifying the vessel manufacturer(s), the type and form of weld materials and manufacturers, and the specified properties of the weld materials.

RESPONSE:

The Unit 1 reactor vessel and part of the Unit 2 vessel was fabricated by the Babcock & Wilcox Company. The Unit 2 vessel fabrication was completed by Combustion Engineering, Inc.

Weld materials information is presented in references 1 and 2. In addition to the information contained in these references, the following information is presented for the reactor vessel welds:

| <u>Weld Location</u>                          | <u>Type</u> | <u>Weld Wire</u><br><u>Heat No.</u> | <u>Type</u> | <u>Flux</u><br><u>Lot No.</u> |
|---|-------------|-------------------------------------|-------------|-------------------------------|
| <u>Unit 1:</u>                                |             |                                     |             |                               |
| Inter. Shell to<br>Lower Shell<br>Circle Seam | Mn-Mo-Ni    | 71249                               | LINDE 80    | 8445                          |
| Inter. Shell<br>Long. Seams                   | Mn-Mo-Ni    | 1P0815                              | LINDE 80    | 8350                          |
|   | Mn-Mo-Ni    | 1P0661                              | LINDE 80    | 8304                          |
| Lower Shell<br>Long. Seams                    | Mn-Mo-Ni    | 61782                               | LINDE 80    | 8350                          |
| Surveillance Weldment                         | Mn-Mn-Ni    | 72445                               | LINDE 80    | 8504                          |
| <u>Unit 2:</u>                                |             |                                     |             |                               |
| Inter to Lower<br>Shell Circle Seam           | Mn-Mo-Ni    | 72442                               | LINDE 80    | 8579                          |
| Surveillance Weld                             | Mn-Mo-Ni    | 406L44                              | LINDE 80    | 8773                          |

2. Describe the procedures utilized during fabrication to verify conformance to the specifications. Provide information on materials conformance testing, welding procedure qualification testing, welder performance tests, etc.

RESPONSE:

Both reactor vessels are ASME Class A vessels. Fabrication was completed in 1968 for Unit 1 and 1970 for Unit 2. The Unit 1 vessel was designed and fabricated to the requirements of the 1965 Edition of Section III of the ASME Code. The comparable document for the Unit 2 vessel was the 1968 Edition with Addenda including the Winter 1968 Addenda. The procedures and requirements of these documents would have been applicable to the materials and fabrication processes used during construction of the reactor vessels.

3. Identify those cases of weld filler material which did not meet procurement specifications based on verification tests, etc.

RESPONSE:

Our records are not known to contain any discrepancies of this nature. Obviously, if the material nonconformance was identified then the material would not have been used. The subsequent disposal of the material is of no concern to the actual reactor vessel weldments.

4. Provide information on the availability of archive weld materials which might be used for verification purposes.

RESPONSE:

In early 1976, the available PBNP reactor vessel archive material was obtained from Westinghouse Electric Corporation and shipped to the Point Beach Nuclear Plant where it now resides. Figures 1 and 2 attached show the shape and size of the available pieces of material for Units 1 and 2 respectively. The numbers on the sketches relate the material to the respective vessel plate or forging material. With respect to weldments, only one piece for the Unit 2 vessel is available; no pieces exist for Unit 1.

X

References:

1. Letter of Mr. S. Burstein to Mr. E. Case, Attn. Mr. G. Lear, "Docket Nos. 50-266 and 50-301, Reactor Vessel Materials Information, Point Beach Nuclear Plant, Units 1 and 2", July 18, 1977.
2. Letter of Mr. S. Burstein to Mr. B. Rusche, Attn. Mr. G. Lear, "Docket Nos. 50-266 and 50-301, Reactor Vessel Fracture Toughness, Point Beach Nuclear Plant, Unit Nos. 1 and 2", March 4, 1977.



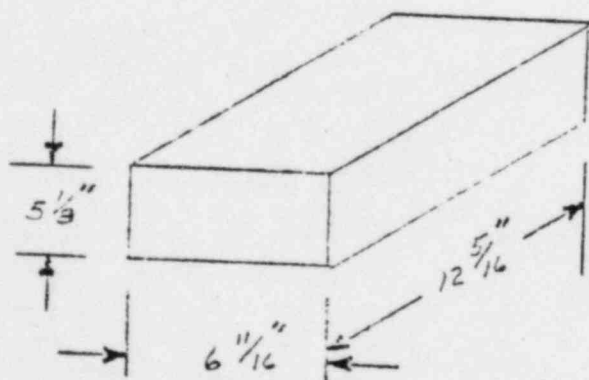
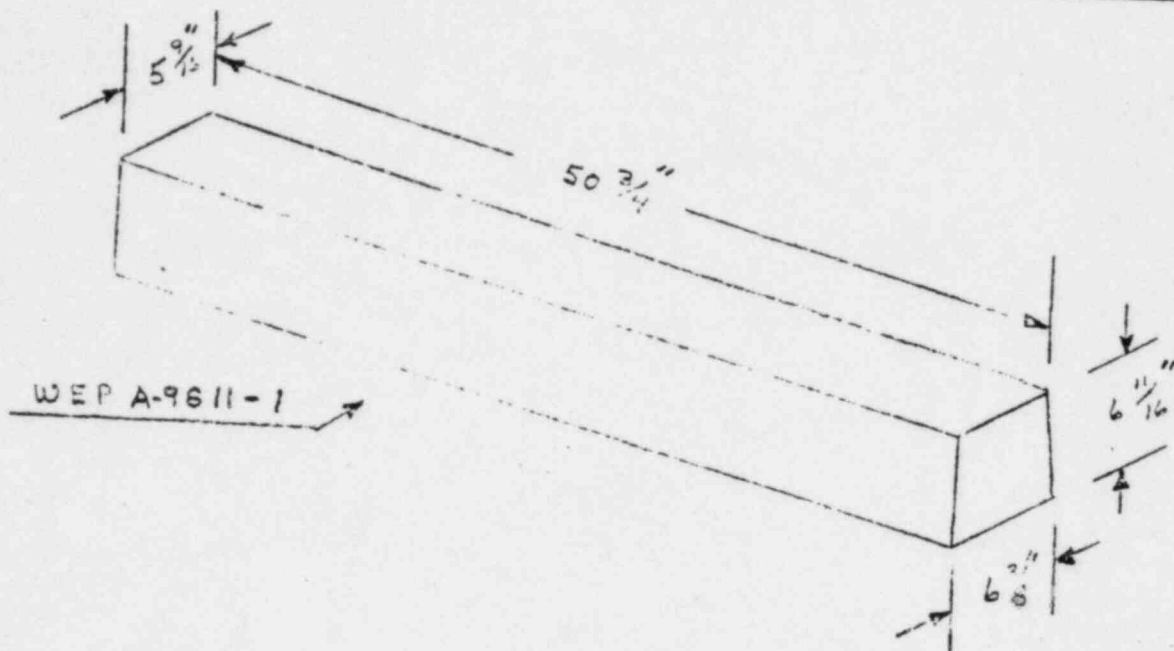
## CALCULATION SHEET

SHEET 1 OF 1SUBJECT PPMP Unit 1 Reaction Vessel

FILE No. \_\_\_\_\_

MADE BY ALW DATE 5/10/96Archive Material(Not To Scale - Approx dimensions)

CHKD. BY \_\_\_\_\_ DATE \_\_\_\_\_

WEP C-1423FIGURE 1



CALCULATION SHEET

SHEET \_\_\_\_\_ OF \_\_\_\_\_

SUBJECT PBNP Unit 2 Reactor Vessel

FILE No. \_\_\_\_\_

MADE BY DLB DATE 5/10/64

Archive Material

CHKD. BY \_\_\_\_\_ DATE \_\_\_\_\_

(Not to Scale - Approx. dimensions)

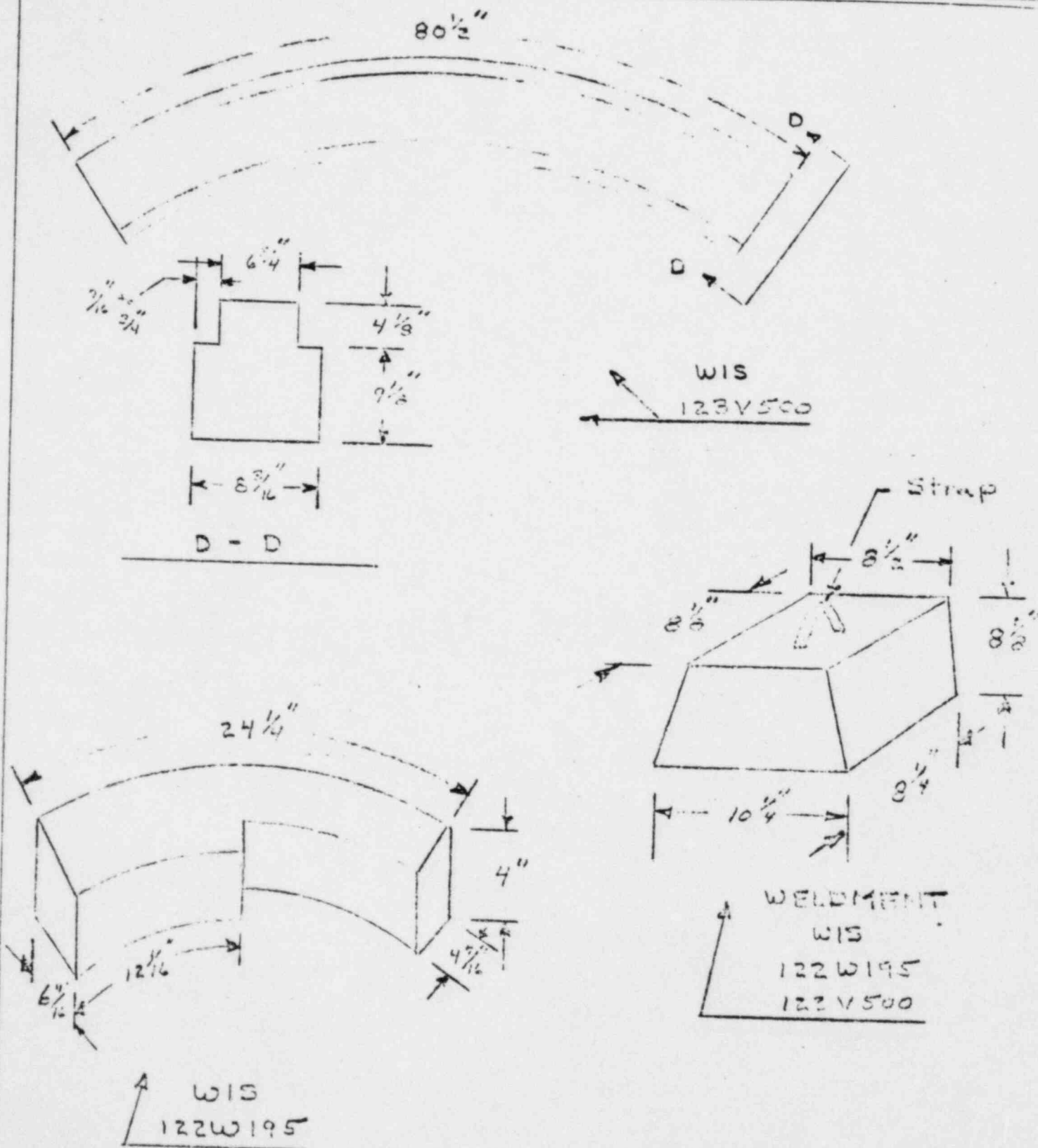


FIGURE 2