

Dmb

STONE AND WEBSTER MICHIGAN, INC.  
P.O. BOX 1963, MIDLAND, MICHIGAN 48640

PRINCIPAL STAFF			
RA	<i>ts</i>	OPRP	<i>orig 3</i>
D/RA		DE	
A/RA		DRMSP	
RC		DRMA	
PAO		SCS	
SGA		ML	
ENF		File	<i>ts</i>

*50-329*  
*50-330*

DATE	<i>5-2-84</i>
J. O. NO.	14509
P. O. NO.	
LTR NO.	SWM- <i>125</i>
REF.	

VIA

TO DISTRIBUTION

DEAR SIR:

THE FOLLOWING ARE  ATTACHED  SENT SEPARATELY.

<input checked="" type="checkbox"/> COPIES	<input type="checkbox"/> PRINTS	<input type="checkbox"/> REPRODUCIBLES	<input type="checkbox"/> MICROFILM APERTURE CARDS
EACH OF			
<input type="checkbox"/> DRAWINGS	<input type="checkbox"/> SPECIFICATIONS		
<input checked="" type="checkbox"/> DOCUMENTS	<input type="checkbox"/> NOTES OF CONFERENCE		

STATUS		PLEASE NOTE	SENT FOR YOUR	
<input type="checkbox"/> FINAL	<input checked="" type="checkbox"/> APPROVED	<input type="checkbox"/> REVISIONS	<input type="checkbox"/> APPROVAL	<input type="checkbox"/> COMMENT
<input type="checkbox"/> PRELIMINARY	<input type="checkbox"/> APPROVED AS REVISED <small>AS DEFINED IN SPECIFICATION</small>	<input type="checkbox"/> ADDITIONS	<input type="checkbox"/> USE	<input type="checkbox"/> INFORMATION
<input type="checkbox"/> NO COMMENT	<input type="checkbox"/> UNACCEPTABLE	<input type="checkbox"/> COMMENTS	<input checked="" type="checkbox"/> FILES	<input type="checkbox"/> CONCURRENCE
<input type="checkbox"/> SUGGESTIONS AS NOTED	<input checked="" type="checkbox"/> CLOSED		<input type="checkbox"/>	

YOUR ATTENTION IS DIRECTED TO THE FOLLOWING:

RELEASED FOR:  FABRICATION  PURCHASE OF NECESSARY MATERIALS

PLEASE REVISE AND SUBMIT \_\_\_\_\_ PRINTS \_\_\_\_\_ REPRODUCIBLES \_\_\_\_\_ MICROFILM APERTURE CARDS

PLEASE SUBMIT \_\_\_\_\_ PRINTS \_\_\_\_\_ REPRODUCIBLES \_\_\_\_\_ MICROFILM APERTURE CARDS OF  DOCUMENTS  DRAWINGS  SHOP DETAIL

PLEASE RETURN ONE COPY EACH OF THIS MATERIAL BEARING YOUR APPROVAL OR COMMENTS

PLEASE ACKNOWLEDGE RECEIPT OF THIS MATERIAL BY SIGNING AND RETURNING THE ENCLOSED COPY OF THIS FORM

WE TRUST THAT THESE NOTES ARE IN ACCORDANCE WITH YOUR UNDERSTANDING. IF NOT, PLEASE ADVISE US

IMPORTANT SHOULD ANY REVISION TO DOCUMENTS OR DRAWINGS RETURNED HEREWITH INVOLVE A PRICE INCREASE THE SUPPLIER MUST NOTIFY STONE & WEBSTER PURCHASING DEPARTMENT WITHIN TEN (10) DAYS EVEN THOUGH A DEFINITE ESTIMATE CANNOT BE GIVEN AT THE TIME OTHERWISE THE PURCHASER WILL CONSIDER THE REVISIONS MADE WITHOUT COST.

The following Closed CIO Item/Hold Point Notification(s) is (are) attached for your action/information:

ITEM 072  
ITEM 073

DISTRIBUTION:

- Job File C.3 (orig + 1)
- DLQuamme, CPCo
- NIReichel, CPCo
- RAWells, CPCo
- JGKeppler, NRC
- JJHarrison, NRC
- BLBurgess, NRC (site)
- APAmoruso (2)
- KRARndt/Chrono/Vault w/o attach(2)
- Initiator

*J. E. Karr*  
J. E. Karr  
CIO Program Manager

JUN 4 1984

8406060221 840604  
PDR ADOCK 05000329  
S PDR

*IEO1*

# ITEM/HOLD POINT NOTIFICATION FORM

Sheet 1 of 1

<b>STONE &amp; WEBSTER</b> <b>CONSTRUCTION IMPLEMENTATION</b> <b>OVERVIEW</b> <b>MIDLAND NUCLEAR PLANT J.O. NO. 14509</b>	ITEM NUMBER <div style="text-align: center; font-size: 1.2em;">072</div>	HOLD POINT NUMBER 
REFERENCE(S) ANSI N45.2 Section 7	<input type="checkbox"/> TRACKED ACTION ITEM <input checked="" type="checkbox"/> TRACKED INFORMATION ITEM <input type="checkbox"/> TRACKED RECOMMENDATION ITEM <input type="checkbox"/> UNTRACKED ITEM <input type="checkbox"/> HOLD POINT NOTIFICATION	

**CONDITION DETAILS**

The following approved B&W NDE procedures lack consistency in specifying the procedure, page and revision number as applicable.

- A) Procedure NDE-PQ-RT - 200  $\Delta$  consist of 3 pages  
 Page 1 of 3 reads: NDE-PQ-RT-200 Page 1 of 3 Revision 1  
 Page 2 of 3 reads: 9T-RT-200 Page 2 of 3 No Revision specified  
 Page 3 of 3 reads: 9T-RT-200 Page 3 of 3 No Revision specified
- B) Procedure NDE-PQ-RT-201  $\Delta$  consist of 3 pages  
 Pages 2 of 3 and 3 of 3 lack procedure number and revision.
- C) Procedure NDE-PQ-RT-202  $\Delta$  consist of two pages  
 Pages 1 & 2 lack page number

What action is being taken to resolve the identified inconsistencies?

(PAGE NO'S)  
 YES  NO

**ATTACHMENTS**

DATE RESPONSE REQ'D. 4-23-84	INITIATOR/DATE <i>Ronald E Horine 04-11-84</i>	INITIATION APPROVED/DATE <i>Not Acting for DEK 4-11-84</i>
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**RESPONSE (SEE NOTE)**

Attached Bechtel Letter BCCC-9287 dated April 30, 1984 has been reviewed by CPCo SMO and determined to provide a complete response to this item.

\*(Follow up closeout verification)

On 5-30-84, the following was verified and found satisfactory:

- A) NDE-PQ-RT-200, Rev 1, Page 2 of 3 & Page 3 of 3 have been annotated with NDE-PQ-RT-200, Rev 1.
- B) NDE-PQ-RT-201, Rev 1, Page 2 of 3 & Page 3 of 3 have been annotated with NDE-PQ-RT-201, Rev 1.
- C) NDE-PQ-RT-202, Rev 0, Pages 1 & 2 have been numbered.

The above verification as viewed in B&W controlled QC manual no. 22 CPCo.

(PAGE NO'S)  
 YES  NO 9

**ATTACHMENTS**

EST. CORRECTIVE ACTION COMPLETION DATE <i>NA</i>	RESPONDENT <i>MI Riedel</i>	TITLE <i>Asst. Const. Supt.</i>	DATE <i>5/9/84</i>
RESPONSE ACCEPTED <i>Ronald E Horine</i>	DATE <i>* 05-25-84</i>	RESPONSE VERIFIED/CLOSED <i>Ronald E Horine 5-31-84</i>	DATE <i>05/31/84</i>

NOTE - FOR TRACKED ACTION ITEMS ONLY, EXPLAIN CLEARLY OR REFERENCE ATTACHMENTS FOR:

1) CAUSE OF OBSERVED CONDITION 2) CORRECTIVE ACTION TAKEN 3) PREVENTIVE ACTION TAKEN

(KA)

# Bechtel Power Corporation

Post Office Box 2167  
Midland, Michigan 48640



April 30, 1984

Consumers Power Company  
P.O. Box 1963  
Midland, Michigan 48640

Attention: D. L. Quamme  
Site Manager

Midland Plant Units 1 & 2  
Bechtel Job 7220  
STONE & WEBSTER OVERVIEW  
ITEM NO. 072  
BCCC-9287

Dear Mr. Quamme:

This is considered as Construction's final response to Stone and Webster Overview Item No. 072.

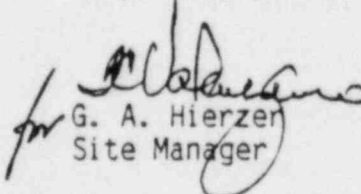
Procedure NDE-PQ-RT-200 Revision 1, Page 2 of 3 and Page 3 of 3, have been annotated with PQ-RT-200 Revision 1.

Procedure NDE-PQ-RT-201 Revision 1, Page 2 of 3 and Page 3 of 3, have been annotated with PQ-RT-201 Revision 1.

Procedure NDE-PQ-RT-202 Revision 0, Pages 1 and 2 have been page numbered.

If you have any questions, please contact John Russell at extension 7594.

Very truly yours,

  
G. A. Hierzer  
Site Manager

GAH/JER/ajd

Attachments: 1) NDE-PQ-RT-200, Rev. 1  
2) NDE-PQ-RT-201, Rev. 1  
3) NDE-PQ-RT-202, Rev. 0

cc: N. Reichel

BABCOCK & WILCOX  
B&W CONSTRUCTION COMPANY  
NONDESTRUCTIVE EXAMINATION

RADIOGRAPHIC PROCEDURE QUALIFICATION

MATERIAL TYPE Carbon, Low Alloy & Stainless Steels

MATERIAL THICKNESS .150"

MATERIAL THICKNESS RANGE CERTIFIED .150" through 3-1/2"

TYPE OF RADIATION SOURCE Iridium-192

PHYSICAL SIZE OF ISOTOPE SOURCE .010 x .010 (effective source size .141)

MINIMUM SOURCE TO FILM DISTANCE See Attached Sketch

FILM DISTANCE TO OBJECT Intimate contact

FILM TYPE & BRAND Type 1, Dupont 45

NUMBER OF FILM IN CASSETTE Two

FILM TO BE VIEWED Single

TYPE & THICKNESS OF SCREENS & FILTERS .010 lead screens front and back.

BLOCKING & MASKING IF USED None

GEOMETRIC ARRANGEMENTS FOR THE RADIOGRAPHS (SKETCH) See Attached Sketch.

ORIENTATION OF LOCATION MARKERS See Attached Sketch

INTERNAL MARKERS None

WELDING PROCESS Manual Gas Tungsten Arc and/or Shielded Metal Arc Welding

APPROVED BY *J.D. Thompson*  
B&W CONSTRUCTION COMPANY

DATE 4-16-75

IDENTIFICATION:

WITNESSED BY *H.M. Jones*  
AUTHORIZED INSPECTOR

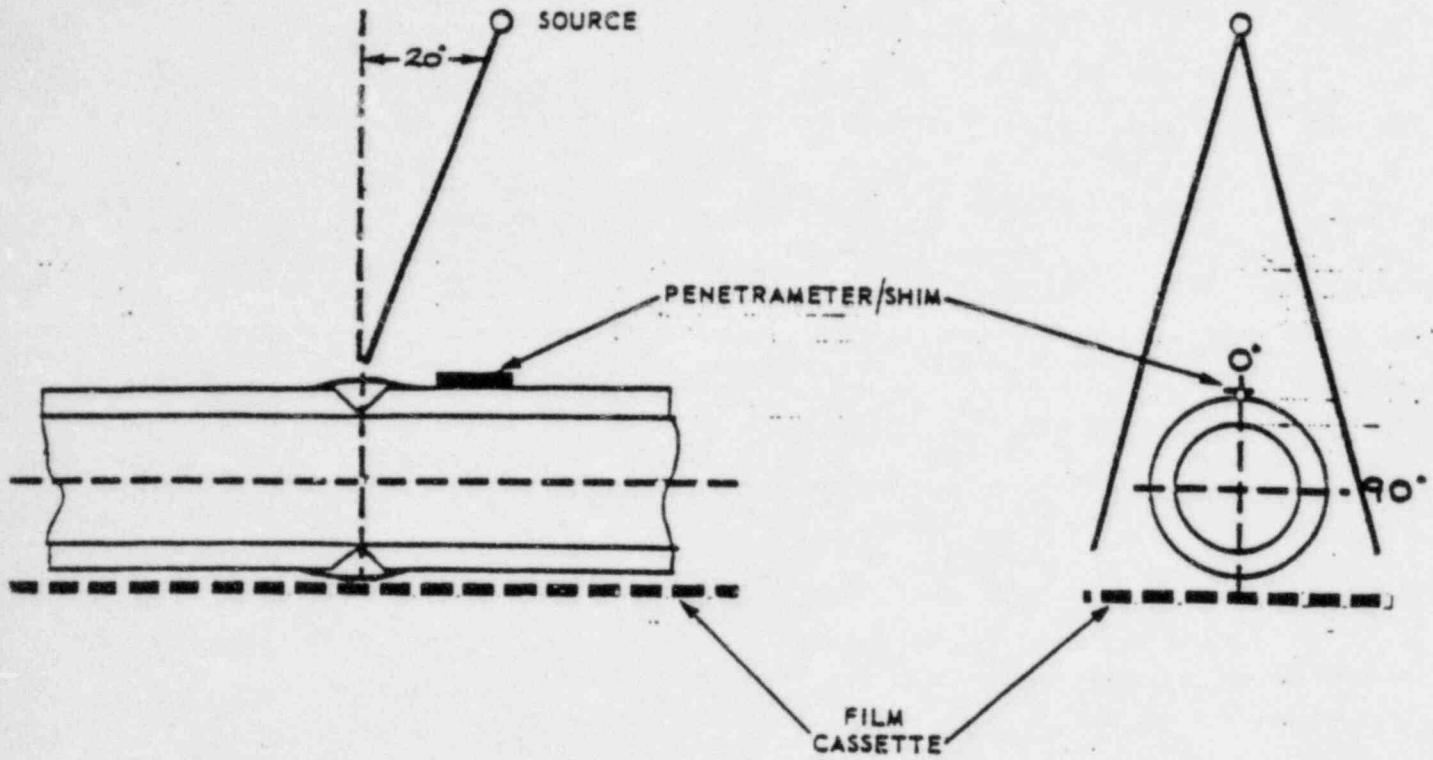
DATE 4-16-75

NDE-PQ-RT-200

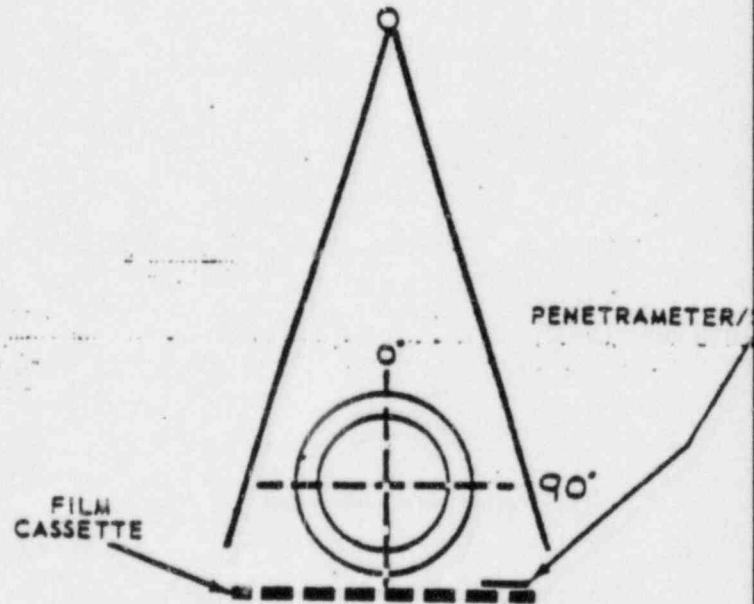
REV. 1

*HSB - Ohio-1143*  
*N.B. 2526*

INSPECTION SKETCH



PIPE DIAMETER: .841  
WALL THICKNESS: .150  
SOURCE TO FILM DISTANCE: 12"



Subject: RADIOGRAPHIC EXAMINATION OF  
CIRCUMFERENTIAL BUTT WELDS  
USING IRIIDIUM-192

Contract N/A

Sketch by R. C. SULZER

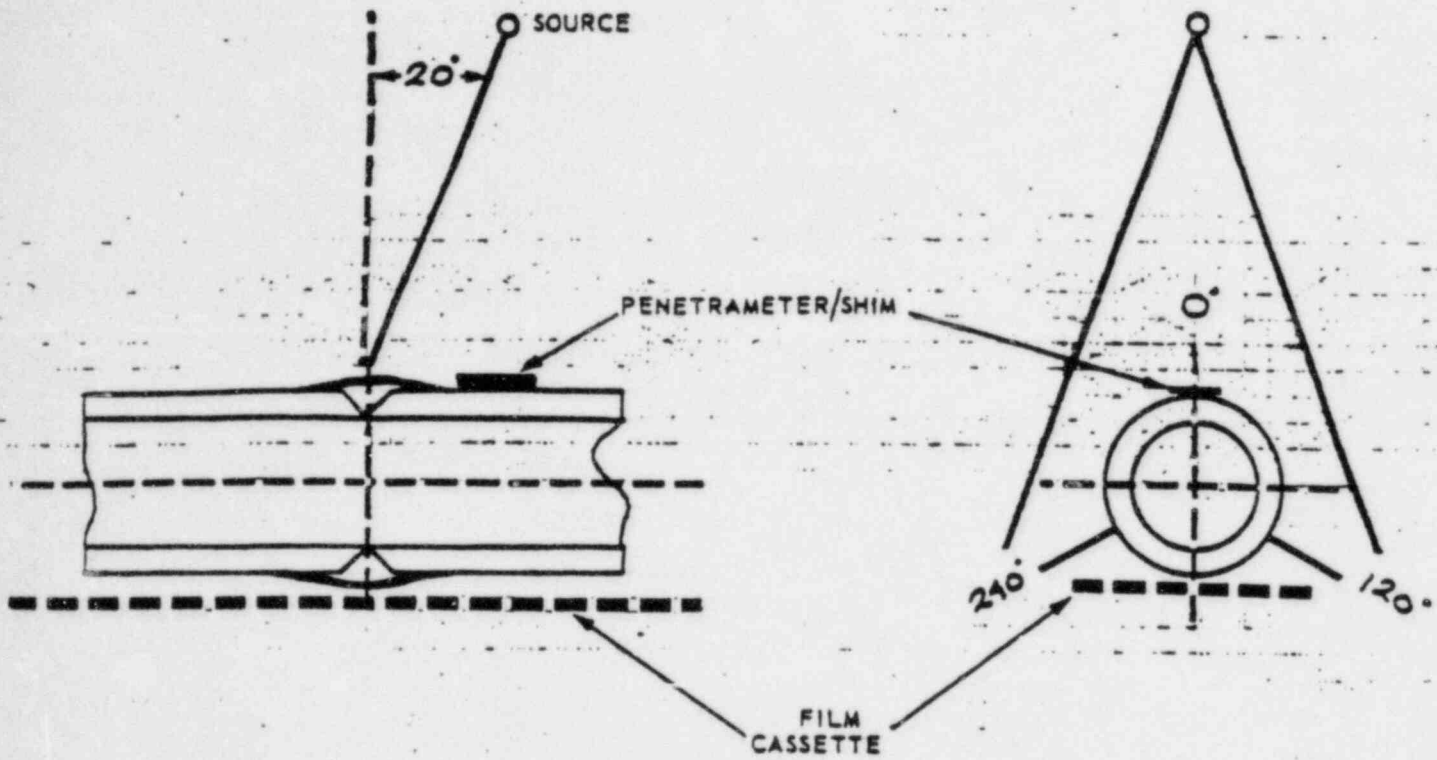
SUPPLEMENTS REPORT OF INSPECTION

Sketch No. N/A

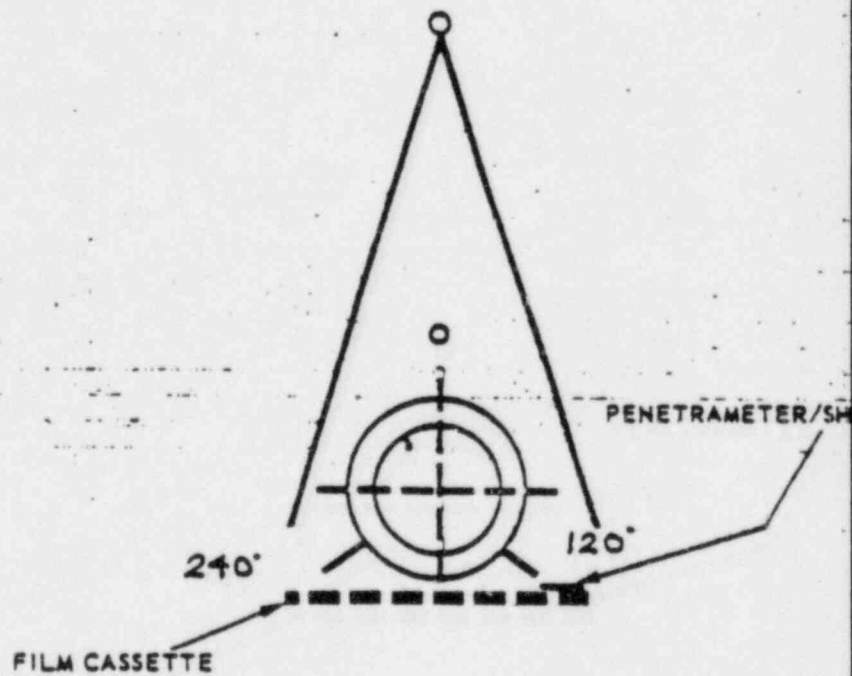
Revision N/A

Number NDE-PQ-RT-200, Rev. 1

INSPECTION SKETCH



PIPE DIAMETER: .841  
WALL THICKNESS: .150  
SOURCE TO FILM DISTANCE: 12"



Subject: RADIOGRAPHIC EXAMINATION OF  
CIRCUMFERENTIAL BUTT WELDS  
USING IRIIDIUM-192

Contract N/A

Sketch by R. C. SULZER

SUPPLEMENTS REPORT OF INSPECTION

Sketch No. N/A

Revision N/A

Number NDE-PQ-RT-200, Rev. 1

BABCOCK & WILCOX  
B&W CONSTRUCTION COMPANY  
NONDESTRUCTIVE EXAMINATION

RADIOGRAPHIC PROCEDURE QUALIFICATION

MATERIAL TYPE Carbon, Low Alloy, & Stainless Steel

MATERIAL THICKNESS 2" thru 6", inclusive

MATERIAL THICKNESS RANGE CERTIFIED 2" to Maximum to be Radiographed

TYPE OF RADIATION SOURCE Cobalt 60

PHYSICAL SIZE OF ISOTOPE SOURCE .125 Diameter Sphere

MINIMUM SOURCE TO FILM DISTANCE 14"

FILM DISTANCE TO OBJECT Intimate Contact

FILM TYPE & BRAND Type 1, Dupont 55 Type II, Dupont 65

NUMBER OF FILM IN CASSETTE As required, two film min.

FILM TO BE VIEWED Single or composite, as required

TYPE & THICKNESS OF SCREENS & FILTERS .010 lead screens, front and back

BLOCKING & MASKING IF USED None

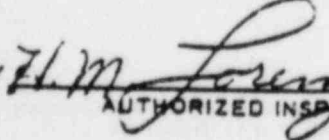
GEOMETRIC ARRANGEMENTS FOR THE RADIOGRAPHS (SKETCH) See Attached Sketch

ORIENTATION OF LOCATION MARKERS See Attached Sketch

INTERNAL MARKERS None

WELDING PROCESS Submerged Arc Welding

APPROVED BY  DATE 8-8-75  
B&W CONSTRUCTION COMPANY

WITNESSED BY  DATE 8-8-75  
AUTHORIZED INSPECTOR

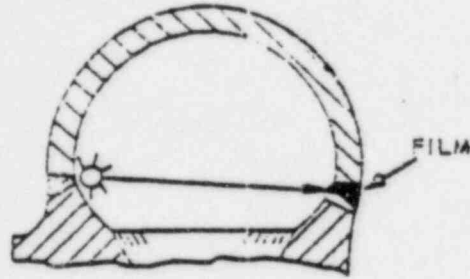
IDENTIFICATION:  
NDE-PQ-RT -201  
REV. 1

RADIOGRAPHIC LAYOUT  
REACTOR COOLANT PUMPS

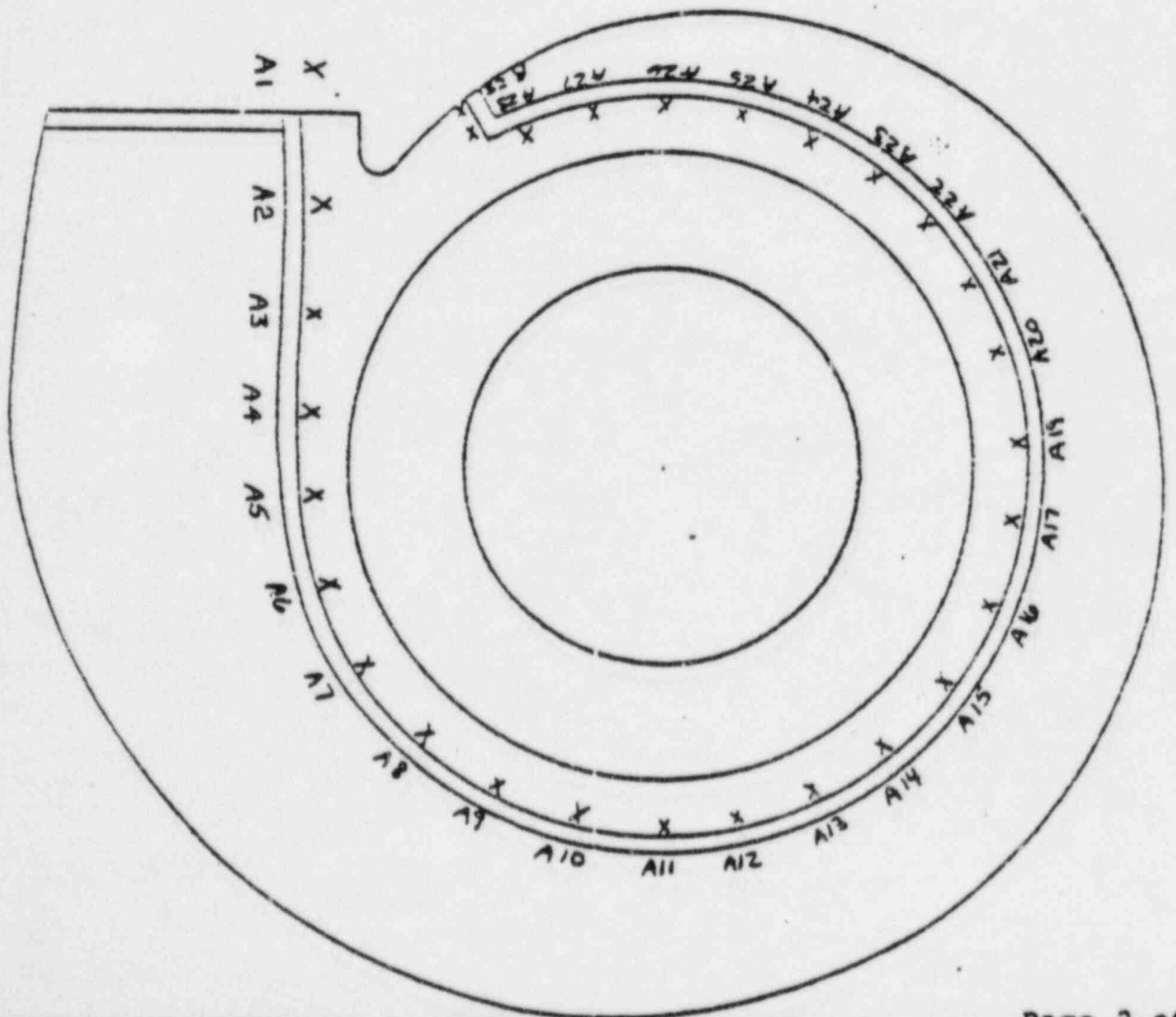
1B1

TOP WELD

BOTTOM WELD



The maximum geometric unsharpness for material thickness up to 4" is .027.



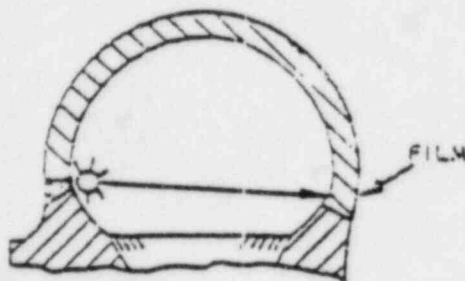


RADIOGRAPHIC LAYOUT  
REACTOR COOLANT PUMPS

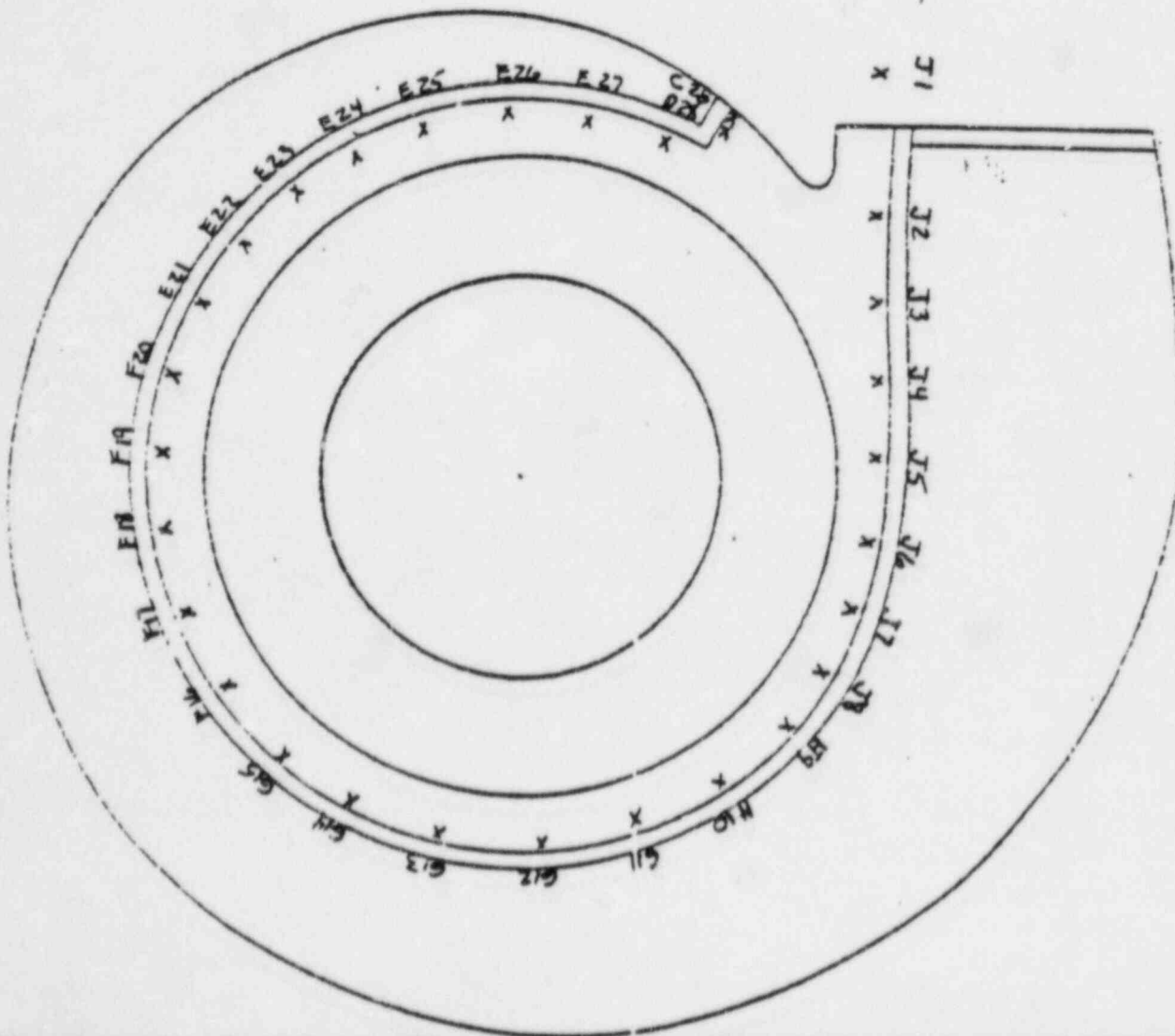
1B1

TOP WELD

BOTTOM WELD



The maximum geometric unsharpness for material thickness up to 4" is .027.



RADIOGRAPHIC PROCEDURE QUALIFICATION

MATERIAL TYPE Carbon, Low Alloy & Stainless Steels

MATERIAL THICKNESS .300" to .425

MATERIAL THICKNESS RANGE CERTIFIED .300" through 3.500"

TYPE OF RADIATION SOURCE Iridium-192

PHYSICAL SIZE OF ISOTOPE SOURCE .100" x .100" (Effective source size .141)

MINIMUM SOURCE TO FILM DISTANCE 3.875" min. 4.250 max.

FILM DISTANCE TO OBJECT .500" max. Source to object 3.200" min.

FILM TYPE & BRAND Type 1, Kodak 'M'

NUMBER OF FILM IN CASSETTE Two

FILM TO BE VIEWED Single

TYPE & THICKNESS OF SCREENS & FILTERS .010" lead screens front & back

BLOCKING & MASKING IF USED None

GEOMETRIC ARRANGEMENTS FOR THE RADIOGRAPHS (SKETCH) See attached sketch

ORIENTATION OF LOCATION MARKERS See attached sketch

INTERNAL MARKERS None

WELDING PROCESS Manual Gas Tungston Arc and/or Shielded Metal Arc welding

APPROVED BY

R. A. Shope  
B&W CONSTRUCTION COMPANY

DATE

6-5-80

WITNESSED BY

AL  
AUTHORIZED INSPECTOR

HSB

DATE

6.5.80

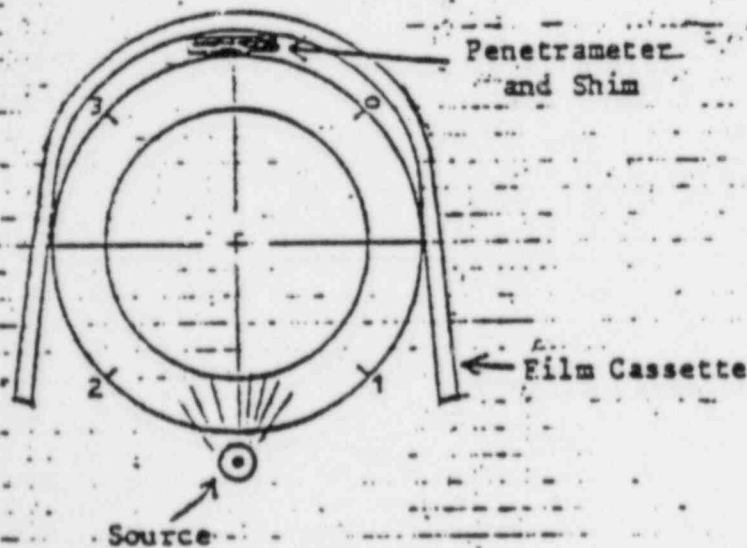
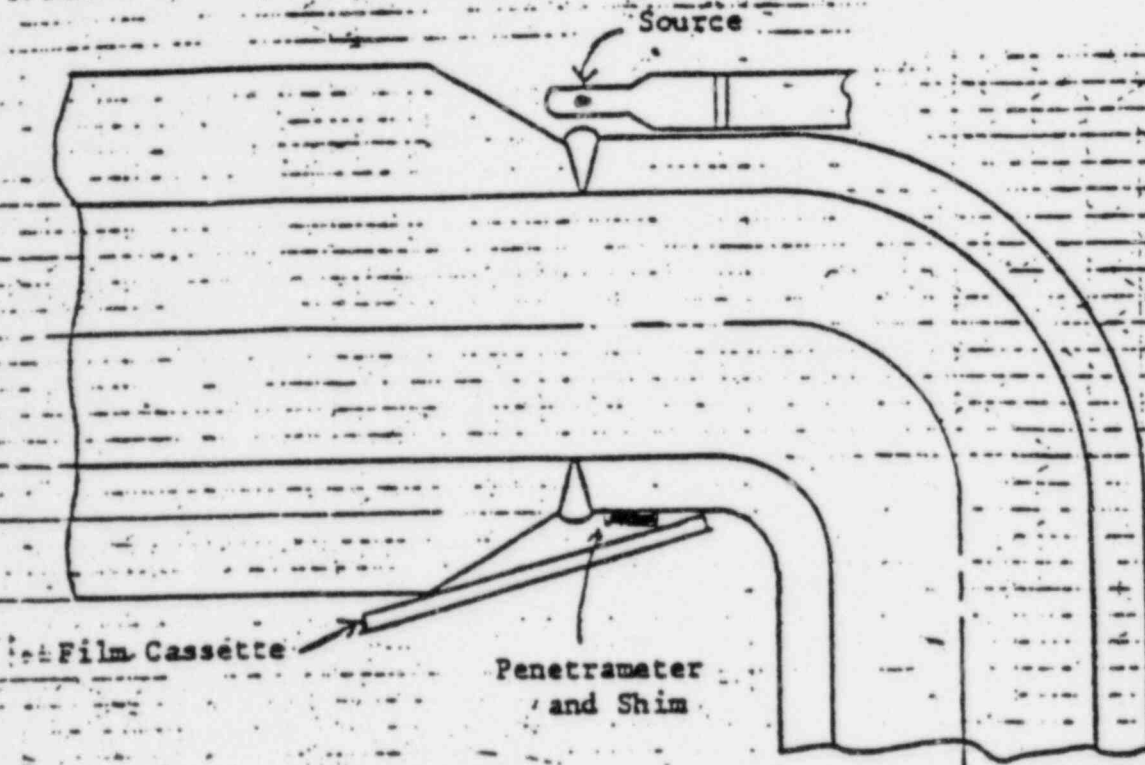
IDENTIFICATION:

NDE-PQ-RT-202

REV. 0

NB 8524

### INSPECTION SKETCH



Subject: Radiographic examination of circumferential butt welds joining pipe to nozzle with unequal O.D. using Iridium-192

Contract N/A

Sketch by R. W. Shope

SUPPLEMENTS REPORT OF INSPECTION

Number NDE-PQ-RT-202 Rev. 0

Sketch No. N/A

Revision N/A

# ITEM/HOLD POINT NOTIFICATION FORM

Sheet 1 of 1

<b>STONE &amp; WEBSTER</b> <b>CONSTRUCTION IMPLEMENTATION</b> <b>OVERVIEW</b> <b>MIDLAND NUCLEAR PLANT J.O. NO. 14509</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">ITEM NUMBER <b>073</b></td> <td style="width: 50%;">HOLD POINT NUMBER</td> </tr> <tr> <td colspan="2"><input type="checkbox"/> TRACKED ACTION ITEM</td> </tr> <tr> <td colspan="2"><input checked="" type="checkbox"/> TRACKED INFORMATION ITEM</td> </tr> <tr> <td colspan="2"><input type="checkbox"/> TRACKED RECOMMENDATION ITEM</td> </tr> <tr> <td colspan="2"><input type="checkbox"/> UNTRACKED ITEM</td> </tr> <tr> <td colspan="2"><input type="checkbox"/> HOLD POINT NOTIFICATION</td> </tr> </table>	ITEM NUMBER <b>073</b>	HOLD POINT NUMBER	<input type="checkbox"/> TRACKED ACTION ITEM		<input checked="" type="checkbox"/> TRACKED INFORMATION ITEM		<input type="checkbox"/> TRACKED RECOMMENDATION ITEM		<input type="checkbox"/> UNTRACKED ITEM		<input type="checkbox"/> HOLD POINT NOTIFICATION	
ITEM NUMBER <b>073</b>	HOLD POINT NUMBER												
<input type="checkbox"/> TRACKED ACTION ITEM													
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<input type="checkbox"/> TRACKED RECOMMENDATION ITEM													
<input type="checkbox"/> UNTRACKED ITEM													
<input type="checkbox"/> HOLD POINT NOTIFICATION													
REFERENCE(S) ANSI N45.2 Section 6&7 B&W      QA Manual Revision 3													

**CONDITION DETAILS**

B&W QA Manual Revision 3 Section 9-QA-09.3 Revision 0 dated 8/13/82 Paragraph 1 in part states. "NDE Procedures shall be demonstrated to the ANI at the jobsite prior to use."

Observation: NDE Procedure NDE-PQ-MT-201 Revision 0 consist of two pages. Page 1 of 2 applies to MT of an as welded (wire brush surface). Page 1 of 2 bears B&W Level III and ANI signatures. Page 2 of 2 applies to the MT of base metal (wire brushed). Page 2 of 2 provides space for the NDE Level III & ANI signatures, however, such signatures are not affixed.

Does B&W have documentation supporting demonstration of NDE-PQ-MT-201 Revision  $\Delta$  Page 2 of 2 to the ANI at the jobsite?

YES (PAGE NO'S)       NO

**ATTACHMENTS**

DATE RESPONSE REQ'D. 4-23-84	INITIATOR/DATE <i>Ronald E Horine 24-11-84</i>	INITIATION APPROVED/DATE <i>Site Authority Approved 4-11-84</i>
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**RESPONSE (SEE NOTE)**

Attached Bechtel Letter BCCG-9288 dated April 30, 1984 has been reviewed by CPCo SMO and determined to provide a complete response to this item.

\*(Follow up closeout verification)

On 5-30-84, the following was verified and found satisfactory:

A) B&W Procedure NDE-PQ-MT-201, Rev 0, Page 2 of 2 has been annotated with the following statement in the approval witness section:

"See Page 1 of 2 for signature"

B) B&W Site Authorized Nuclear Inspector confirmed his agreement that NDE-PQ-MT-201, Rev 0, Page 2 of 2 is satisfactory.

Note: Item (A) as viewed in QC manual no. 22 CPCo.

YES (PAGE NO'S)      2       NO

**ATTACHMENTS**

EST. CORRECTIVE ACTION COMPLETION DATE <i>NA</i>	RESPONDENT <i>MI Rindel</i>	TITLE <i>Asst. Const. Supt.</i>	DATE <i>5/9/84</i>
RESPONSE ACCEPTED <i>Ronald E Horine</i>	DATE <i>* 05/25/84</i>	RESPONSE VERIFIED/CLOSED <i>Ronald E. Horine 5-31-84</i>	DATE <i>05/31/84</i>

NOTE - FOR TRACKED ACTION ITEMS ONLY, EXPLAIN CLEARLY OR REFERENCE ATTACHMENTS FOR:

1) CAUSE OF OBSERVED CONDITION 2) CORRECTIVE ACTION TAKEN 3) PREVENTIVE ACTION TAKEN

(KA)

# Bechtel Power Corporation

Post Office Box 2167  
Midland, Michigan 48640  
April 30, 1984



Consumers Power Company  
P.O. Box 1963  
Midland, Michigan 48640

Attention: D. L. Quamme  
Site Manager

Midland Project Units 1 & 2  
Bechtel Job 7220  
STONE & WEBSTER OVERVIEW  
ITEM NO. 073  
BCCC-9288

Dear Mr. Quamme:

This is Construction's complete response to Stone & Webster Overview Item No. 073.

B&WCC Procedure NDE-PQ-MT-201, Revision 0, Page 2 of 2 has been annotated with the following statement in the approval and witness section, "For signature see Page 1 of 2."

In regard to the question of site demonstration of the MT procedure, the following is offered.

The B&WCC site ANI was satisfied with the procedure as accepted by another Hartford Steam Boiler Inspection and Insurance Company ANI at the B&WCC Home Office. Attached is a copy of the B&WCC log with the ANI's initials signifying his review of the procedure.

If you have any questions, please contact John Russell at extension 7594.

Very truly yours,

A handwritten signature in cursive script that reads "G. A. Hierzer".

G. A. Hierzer  
Site Manager

GAH/JER/ajd

Attachment: B&WCC Log

cc: N. Reichel

A small, illegible handwritten mark or signature at the bottom center of the page.

BY NUMBER (+REV)	BY NUMBER			
9-MT-100 Rev 2 (GENERAL PROCEDURE FOR MAGNETIC PARTICLE EXAM.)	N/A	4/21/81	This general procedure shall be used in conjunction with the applicable manufacturing examination instruction.	via
9-MT-101 Rev 3	NDE-PQ-MT-200 Rev 0.	4/21/81	PROD METHOD OF MAG. PARTICLE EXAM. ACCEPTANCE STANDARDS FOR WELDS.	via
9-MT-102 Rev 3	NDE-PQ-MT-200	4/21/81	PROD METHOD OF MAG. PARTICLE EXAM. ACCEPTANCE STANDARDS FOR WELD SURF. PRPS.	via
9-MT-103-REV 3	NDE-PQ-MT-200	4/21/81	PROD METHOD OF MAG. PARTICLE EXAM. ACCEPTANCE STANDARDS FOR BASE MATERIALS.	via
9-MT-104-Rev 2	NDE-PQ-MT-201	4/21/81	Yoke METHOD OF MAG. PARTICLE EXAMINATION AND ACCEPTANCE STANDARDS FOR WELDS.	via
9-MT-105-REV 3	NDE-PQ-MT-201	4/21/81	Yoke METHOD OF MAG. PARTICLE EXAM. + ACCEPTANCE STANDARDS FOR BASE MATERIALS.	via
9-MT-106 Rev 2	N/A	N/A	ANSI-B31.1 CODE	N/A
9-MT-107 Rev C	N/A	N/A	ANSI B31.1 CODE	N/A
9-MT-109 Rev 4	NDE-PQ-MT-200		ASME SEC. II SUBSECTION N. 1. - 1974 + 1977 Ed. with a rev. of 1978.	*
9-PT-100 Rev 2. (GENERAL PROCEDURE FOR LIQUID PENETRANT EXAM.)	N/A	4/21/81	This general procedure shall be used in conjunction with the applicable manufacturing examination instruction.	via
9-PT-101 Rev 2	NDE-PQ-PT-201(1) NDE-PQ-PT-200(2)	4/23/81	Liquid penetrant method of examination and acceptance standards for welds.	via
9-PT-102 Rev 2	NDE-PQ-PT-201(1) NDE-PQ-PT-200(2)	4/23/81	Liquid penetrant method of examination and acceptance standards for weld edge prepared surfaces.	via