

PRINCIPAL STAFF			
RA	✓	OPRP	✓ orig 3
D/RA		DE	
A/RA		ORMSP	
RC		ORMA	
PAO		SCS	
SGA		ML	
ENF		File	✓

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

DATE	5-3-84
J. O. NO.	14509
P. O. NO.	
LTR NO.	SWM-125
REF.	

DEAR SIRs:

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 AS DEFINED IN SPECIFICATION	<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		

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
CIO Program Manager

8406060221 840604
PDR ADOCK 05000329
S PDR

JUN 4 1984

LEO 1

ITEM/HOLD POINT NOTIFICATION FORM

Sheet 1 of 1

STONE & WEBSTER CONSTRUCTION IMPLEMENTATION OVERVIEW MIDLAND NUCLEAR PLANT J.O. NO. 14509		ITEM NUMBER 072	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	
REFERENCE(S) ANSI N45.2 Section 7		<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 Δ 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 Δ consist of 3 pages Pages 2 of 3 and 3 of 3 lack procedure number and revision. C) Procedure NDE-PQ-RT-202 Δ consist of two pages Pages 1 & 2 lack page number What action is being taken to resolve the identified inconsistencies? <div style="float: right;"> (PAGE YES NO'S) <input checked="" type="checkbox"/> NO </div>			
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>	
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. <div style="float: right;"> (PAGE YES NO'S) <input checked="" type="checkbox"/> YES 9 <input type="checkbox"/> NO </div>			
ATTACHMENTS			
EST. CORRECTIVE ACTION COMPLETION DATE <i>NA</i>	RESPONDENT <i>MI Boudel</i>	TITLE <i>Hest. 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,

A handwritten signature in dark ink, appearing to read "G. A. Hierzer".
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

C.D. Thompson
B&W CONSTRUCTION COMPANY

DATE

4-16-75

IDENTIFICATION:

NDE-PQ-RT-200

WITNESSED BY

H.M. Jones
AUTHORIZED INSPECTOR

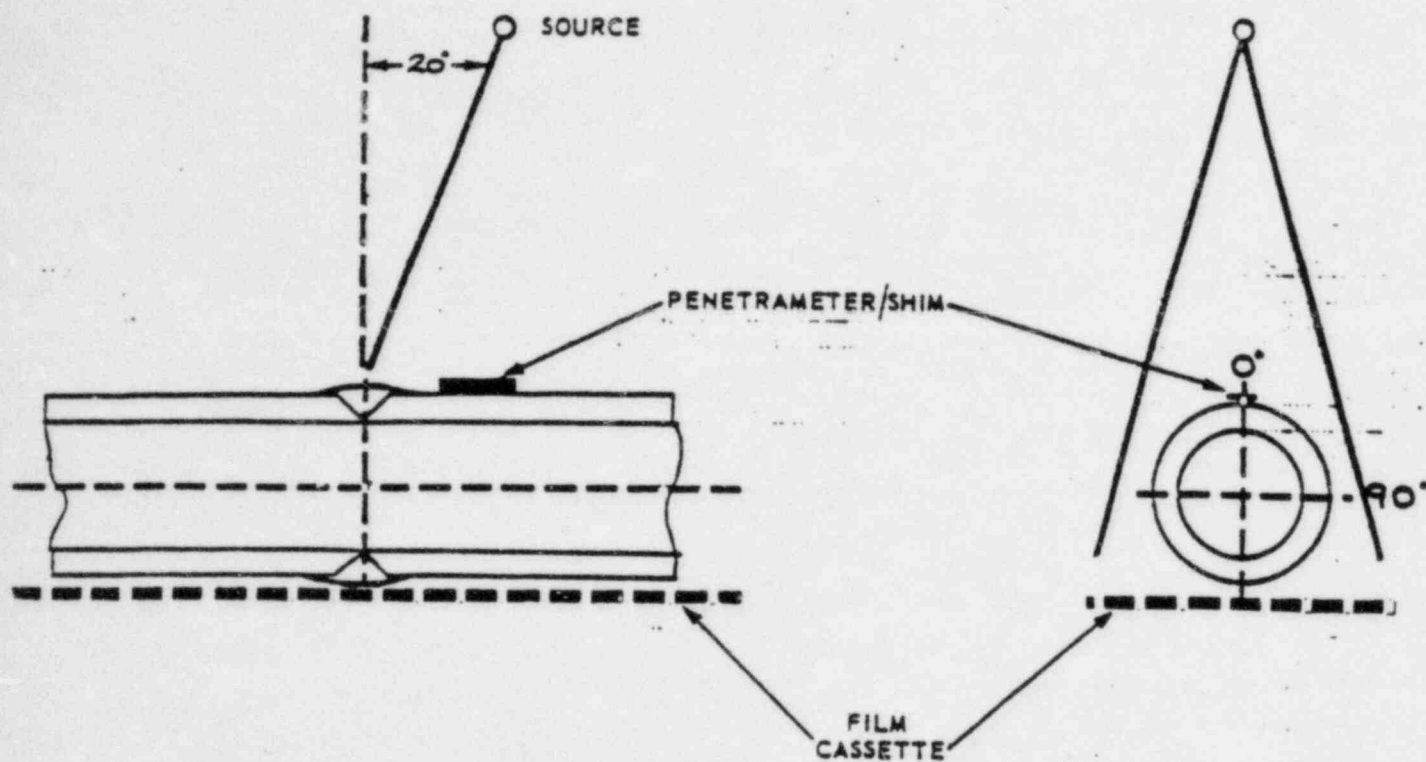
DATE

4-16-75

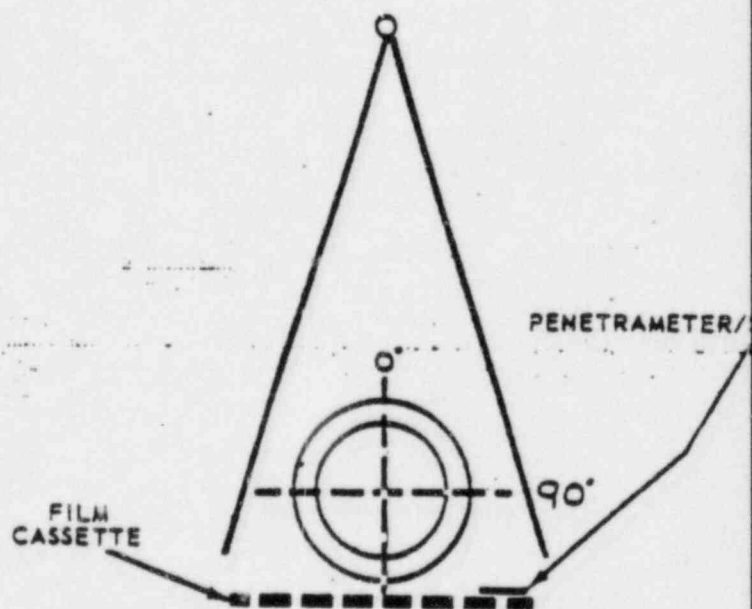
REV. 1

HSB - 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

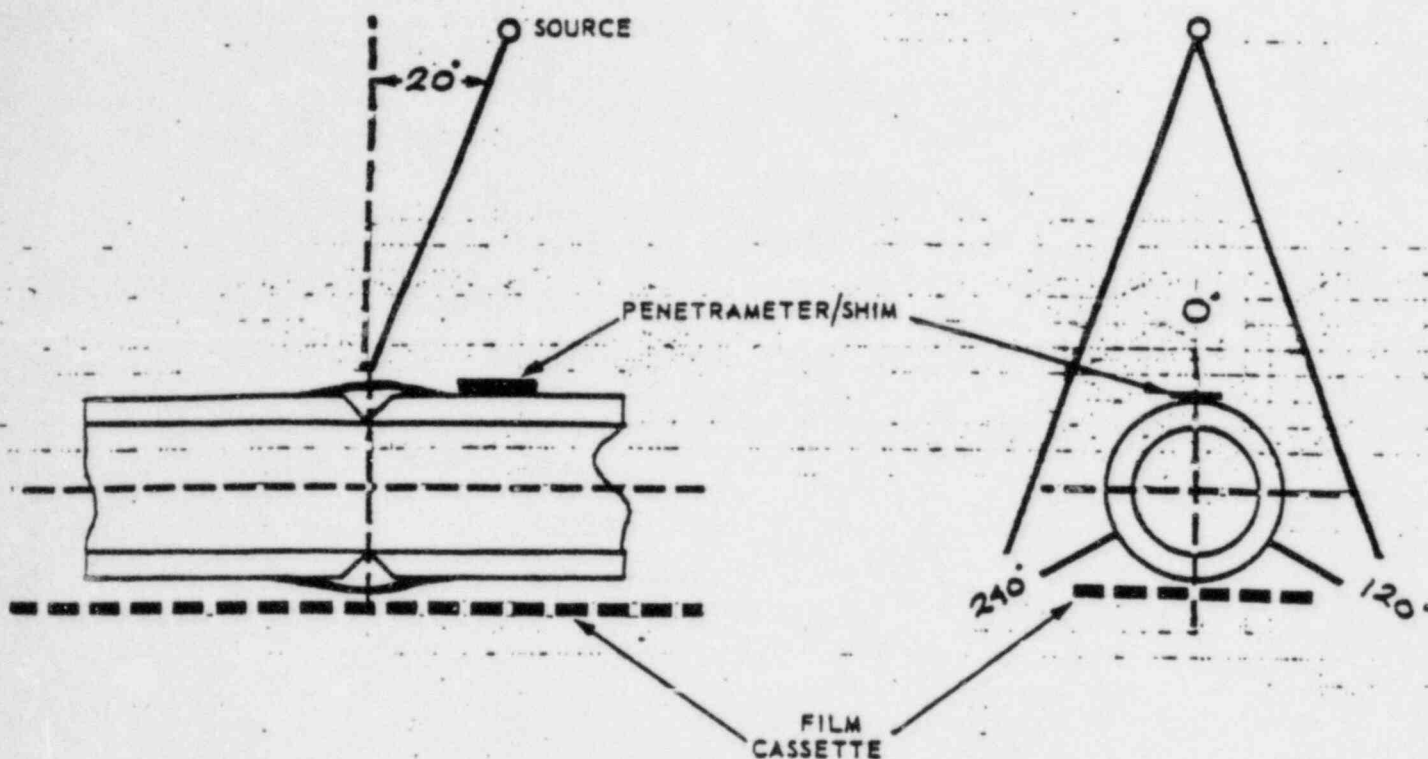
Sketch No. N/A

Revision N/A

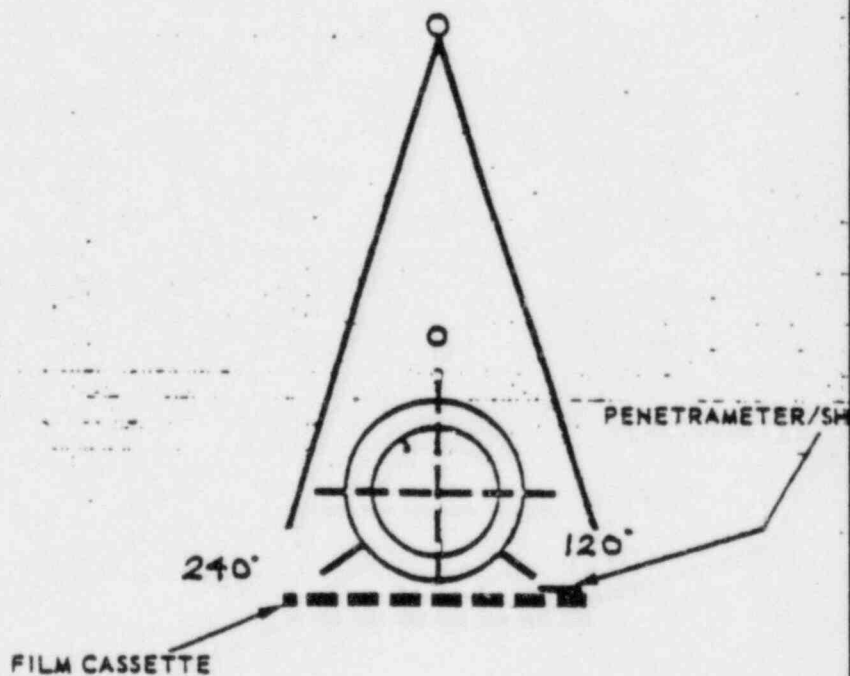
Number NDE-PQ-RT-200, Rev. 1

Page 2 of 2

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 RCSO DATE 8-8-75
B&W CONSTRUCTION COMPANY

WITNESSED BY J. M. Long N.D. 2526 DATE 8-8-75
AUTHORIZED INSPECTOR

IDENTIFICATION:

NDE-PQ-RT - 201

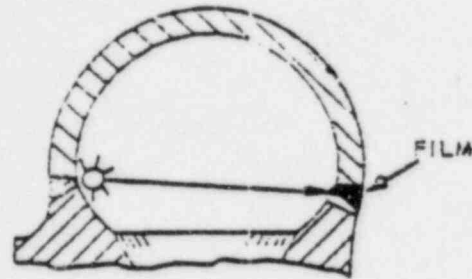
REV. 1

RADIOGRAPHIC LAYOUT REACTOR COOLANT PUMPS

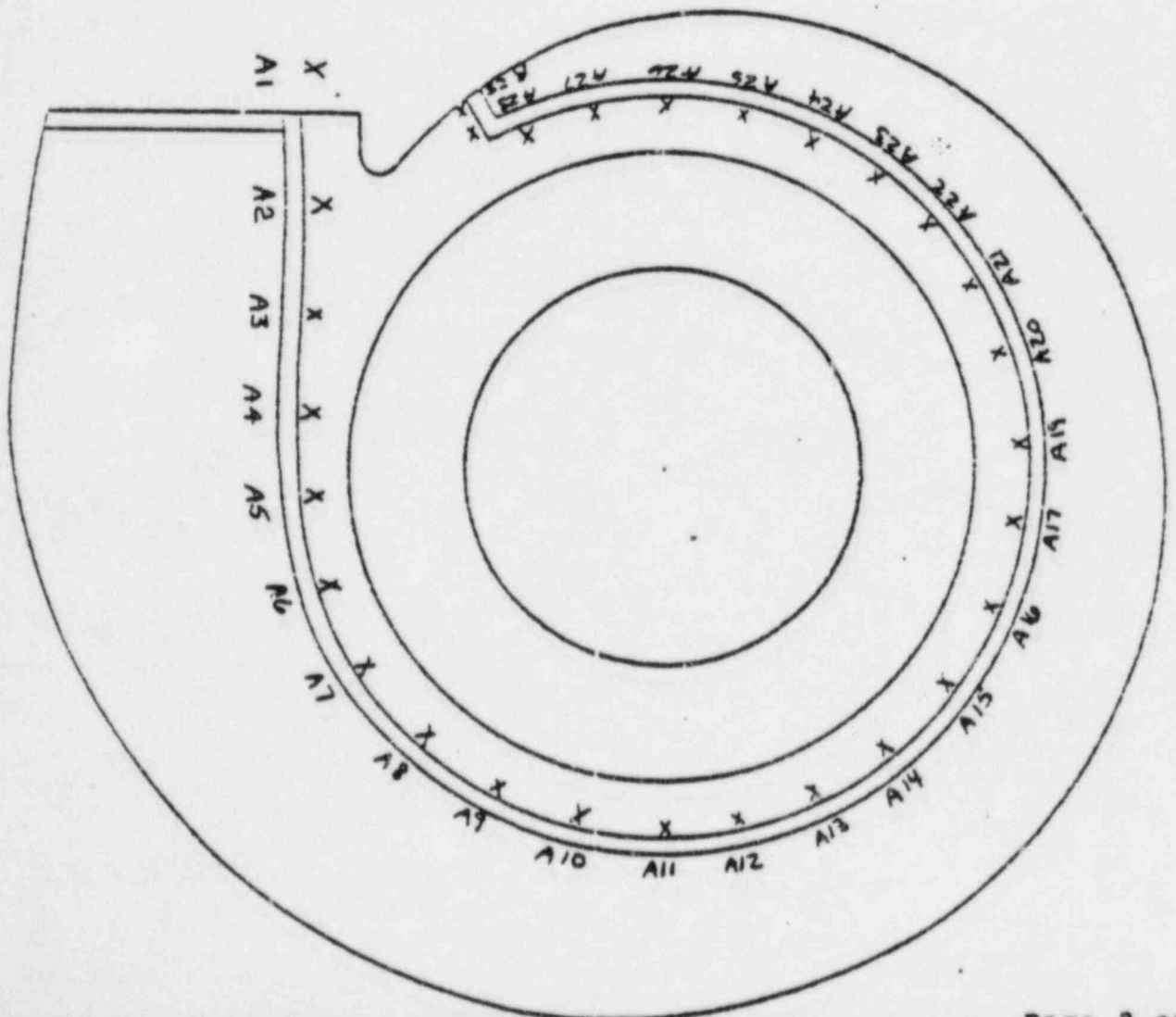
1B1

TOP WELD ☐

BOTTOM WELD ☒



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



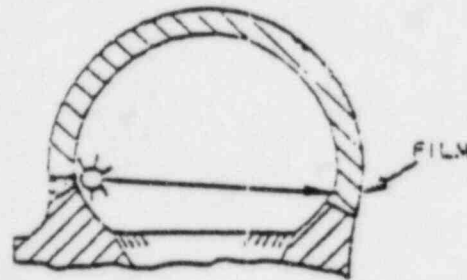
RADIOGRAPHIC LAYOUT
REACTOR COOLANT PUMPS

Item 072
Attachment 1
Page 7 of 9

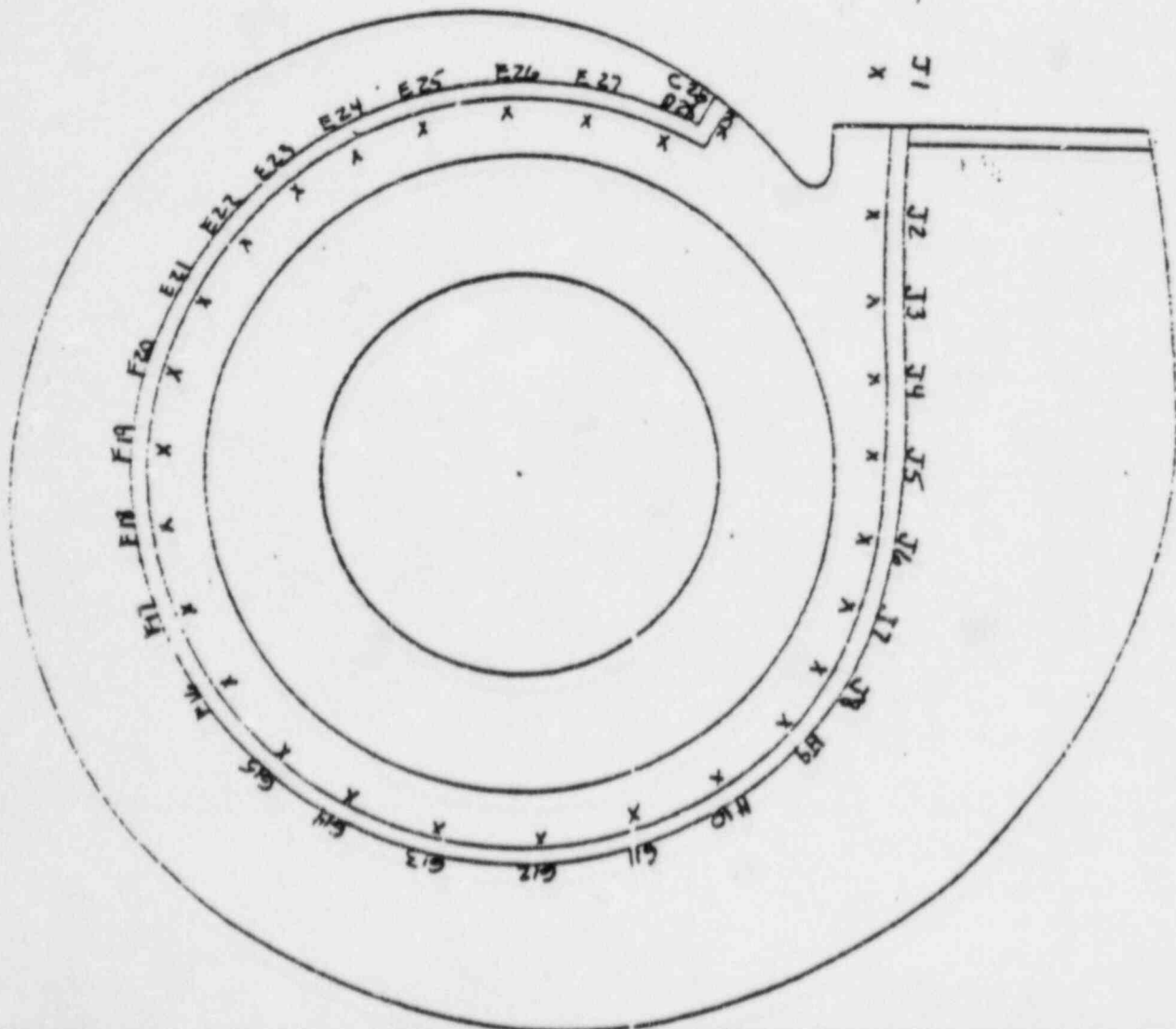
TOP WELD ☒

1B1

BOTTOM WELD ☐



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



BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY
NONDESTRUCTIVE EXAMINATION

Item 072
Attachment 1
Page 8 of 9

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 *AFish*
AUTHORIZED INSPECTOR

145B

DATE 6.5.80

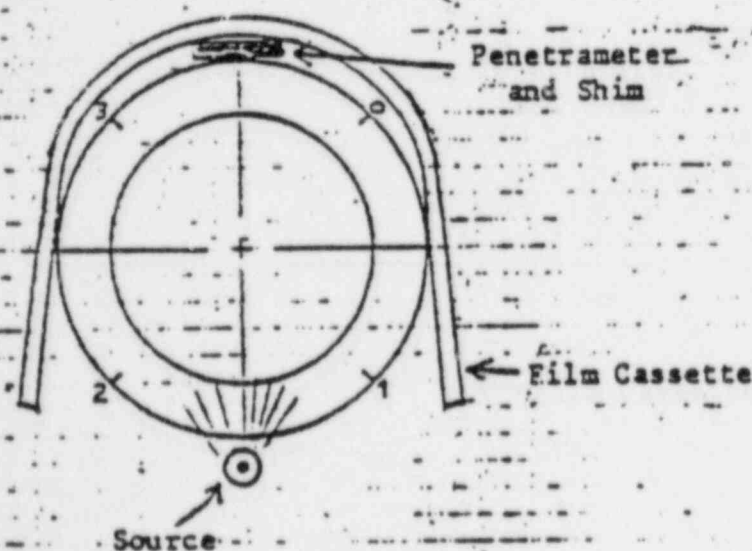
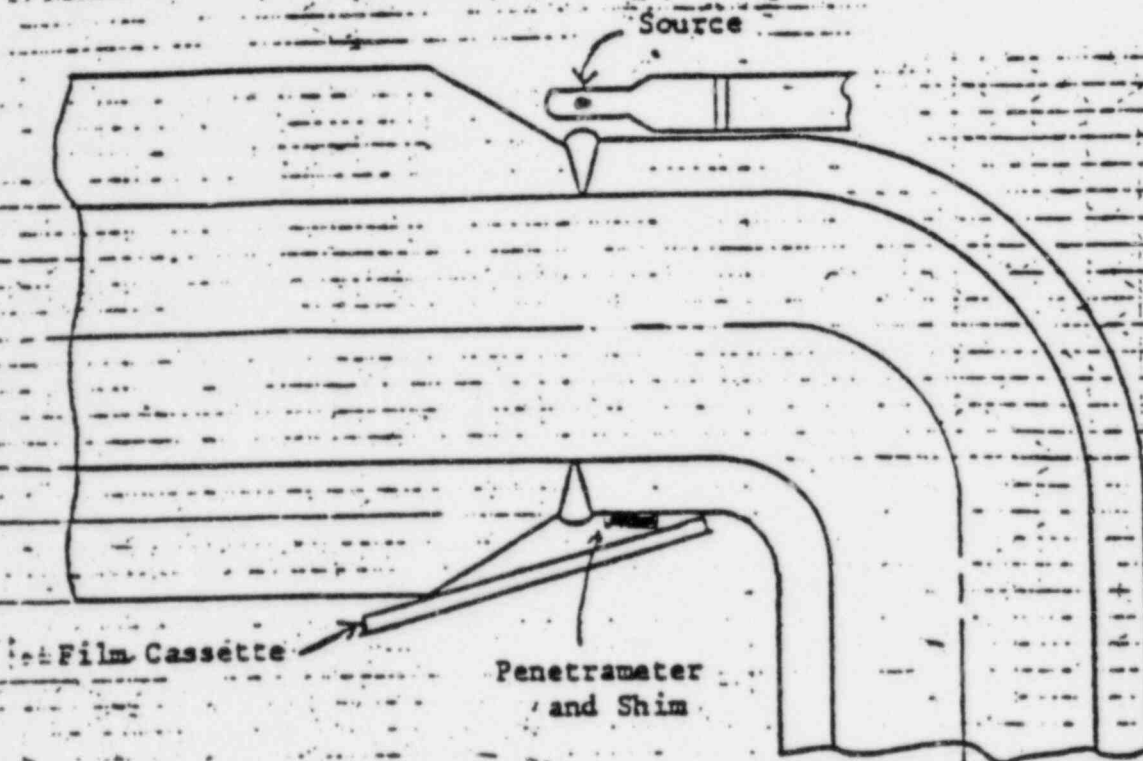
NB 8524

IDENTIFICATION:

NDE-PQ-RT-202

REV. 0

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

STONE & WEBSTER

CONSTRUCTION IMPLEMENTATION

OVERVIEW

MIDLAND NUCLEAR PLANT J.O. NO. 14509

ITEM NUMBER

073

HOLD POINT NUMBER

☐ TRACKED ACTION ITEM

☒ TRACKED INFORMATION ITEM

☐ TRACKED RECOMMENDATION ITEM

☐ UNTRACKED ITEM

☐ 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 0 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

Ronald E Horine 24-11-84

INITIATION APPROVED/DATE

Det. Anthony Arver 4-11-84

RESPONSE (SEE NOTE)

Attached Bechtel Letter BCCC-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

NA

RESPONDENT

MI Daniel

TITLE

Asst. Const. Supt.

DATE

5/9/84

RESPONSE ACCEPTED

Ronald E Horine

DATE

* 05/25/84

RESPONSE VERIFIED/CLOSED

Ronald E Horine 5-31-84

DATE

05/31/84

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, appearing to read "G. A. Hierzer".

G. A. Hierzer
Site Manager

GAH/JER/ajd

Attachment: B&WCC Log

cc: N. Reichel

A small, handwritten mark or signature at the bottom of the page, possibly initials.

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 nondestructive examination instruction.	N/A
9-MT-101 Rev 3	NDE-PQ-MT-200 Rev 0.	4/21/81	PROD METHOD OF MAG. PARTICLE EXAM. ACCEPTANCE STANDARDS FOR WELDS	N/A
9-MT-102 Rev 3	NDE-PQ-MT-200	4/21/81	PROD METHOD OF MAG. PARTICLE EXAM. ACCEPTANCE STANDARDS FOR WELD SURF. PROPS.	N/A
9-MT-103-REV 3	NDE-PQ-MT-200	4/21/81	PROD METHOD OF MAG. PARTICLE EXAM. ACCEPTANCE STANDARDS FOR BASE MATERIALS.	Ch
✓ 9-MT-104- Rev 2	NDE-PQ-MT-201	4/21/81	Yoke METHOD OF MAG. PARTICLE EXAMINATION AND ACCEPTANCE STANDARDS FOR WELDS.	Ch
✓ 9-MT-105-Rev 3	NDE-PQ-MT-201	4/21/81	Yoke METHOD OF MAG. PARTICLE EXAM. ACCEPTANCE STANDARDS FOR BASE MATERIALS.	Ch
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 revision 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 nondestructive examination instruction.	Ch
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.	Ch
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 preparation surfaces.	Ch