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QUALITY ASSURANCE PROGRAM
PROJECT AUDIT REPORT

1 PROJECT: Midland Units 1 and 2

2 JOB NO.: 7220

3 TYPE OF AUDIT: Special (Engineering)

4 ORGANIZATIONS AUDITED: Bechtel Small Pipe Design and Stress Groups

5 AUDIT NO.: 24-5-1 (Part I)

6 AUDIT DATE: 11/5-15/79

7 AUDITOR: H. Ablondi and A. McClure (Auditor Trainee)

8 INDIVIDUALS CONTACTED: A. Sidhu (Engr. Supv.), L. Snyder (QE), and F. Browning (Lead Small Pipe Design Engr.)

9 DESCRIPTION OF AUDIT (SCOPE AND EVALUATION)

The scope of Part I of this audit included QA verification of the small pipe design and stress group's compliance to the following paragraphs of specification 7220-M-343 Rev. 4 and the applicable documents referenced therein:

2.0 Codes and Standards
3.0 Materials
4.0 Submittals
6.0 Design
8.0 Documentation
10.0 Nondestructive Examination

The small pipe design and stress group's output documents that were reviewed for compliance to the above paragraphs are noted on the attachment to this report. Details of Part I of this audit were documented on Quality Checklist No. 24-5-P-0.

An evaluation of the results of this part of the audit will be included in Part II of the audit, which will cover Simplified Pipe Stress Analysis as outlined in paragraph 7.0 of the referenced specification.

Draft copies of the deficiencies (QAFs) noted below were provided to the individuals contacted during the audit. Action assignments and action scheduled completion dates were agreed to by the same individuals during the performance of this part of the audit.

10 DEFICIENCIES NOTED (QAF NO.) (SEE ATTACHED)	ACTION	
	11 RESPONSIBILITY	12 COMPL SCHED DATE
QAF SA-79 RE: Support/Restraint ID	All QAFs Project Engineer	All QAFs 12/12/79
QAF SA-80 RE: Material ID		
QAF SA-81 RE: Mech. Fasteners		
QAF SA-82 RE: Use of St'd Supports		
QAF SA-83 RE: Temperature Limitations		
QAF SA-84 RE: Primary Members		
QAF SA-85 RE: Hanger Details		
QAF SA-86 RE: Restriction of Fillet Welds		
QAF SA-87 RE: Min. Size of Welds		
QAF SA-88 RE: Locking Devices		
QAF SA-89 RE: Location of Anchors		

AUDITOR(S) SIGNATURE: H. Ablondi DATE: 11/15/79

SFP 20604

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Attachment #1
24-5-2

I DWG	HANGR DWG	CALCULATIONS I	CALCULATIONS Hangr	Remarks
FSK-M-1FCB-47-1-(1)	H-1	M-10-1-3	NA	
	H-2		NA	
	H-3		NA	
FSK-M-1CCB-62-1-(0)	H-1	401-1-3	400-525	"QAF"
	H-2		526	
	H-3		527	
2CCB-61-1-(0)	H-1	402-1-4	400-473	"QAF"
	H-2		474	
	H-3		47[illegible]	
1HBC-196-2-(3)	H-1	457-2-2	400-394	
	H-2		NA	
	H-3		395	"QAF"
	H-4		392	"QAF"
	H-5		392	"QAF"
	H-6		386	
1HBC-197-2-(3)	H-1	457-2-1	400-394	
	H-2		NA	
	H-3		395	
	H-4		NA	
	H-5		546	
	H-6		386	"QAF"
2CCB-6-2-1-(0)	H-1	402-1-3	400-473	"QAF"
	H-2		505	
	H-3		506	"QAF"
2CCB-32-2-(3)		404-2-10	NA	
1FCB-44-1-(1)	H-1	410-1-6	400-466	"QAF"
1FCB-54-1-(1)	H-1	410-1-3	400-044	"QAF"
	H-2		397	"QAF"
	H-3		NA	
	H-4		626	"QAF"
1FCB-45-1-(1)	H-1	410-1-9	400-029	
1FCB-46-1-(1)	H-1	410-1-4	400-404	
	H-2		405	"QAF"
	H-3		405	"QAF"
	H-4		400-406	
	H-5		407	"QAF"
	H-6		032	"QAF"
	H-7		434	

I DWG	HANGR DWG	CALCULATIONS I	CALCULATIONS Hangr	Remarks
1CCB-33-1(1)	H-1	403-2-1	NA	
	H-2		400-454	
	H-3		021	
	H-4		021	
	H-5		021	

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QUALITY ASSURANCE FINDING

QAF SA-79
A.I. H-53

1. PROJECT/DEPARTMENT/SUPPLIER	2. TYPE OF AUDIT/SURVEILLANCE OFFICE ☐ FIELD ☒	3. AUDIT IDENT.
Sml Pipe Design & Stress Group	Special	24-5-1
4. AUDITOR (auditor trainee)	5. DATE OF FINDING	7. DISCUSSED WITH
H. Ablondi/A. McClure	11/6/79	L. Snyder 11/9/79 A. Sidhu 11/12/79
6. CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.		
7220-M-343(Q) Rev. 4 Para. 8.1.5		

8. REQUIREMENTS

Para 8.1.5 of Spec. 7220-M-343(Q) states in part that nonstandard pipe attachments, brackets or structural attachment shall have unique identification numbers.

9. FINDING

Contrary to the above (Ref. 8), anchors are not identified on the following FSK piping isometrics:

FSK-M-1CCB-62-1	REV. 0;	FSK-M-1FCB-44-1	REV. 1
FSK-M-2CCB-62-1	REV. 0;	FSK-M-1FCB-47-1	REV. 1
FSK-M-2CCB-61-1	REV. 0;	FSK-M-1FCB-45-1	REV. 1

10. RECOMMENDED ACTION/S

(1) Revise above drawings by the addition of required anchor identification.

(2) Review other ISO's for similar omissions and document results of such review.

11. SCHEDULED COMPLETION DATE	12. RESPONSIBILITY FOR CORRECTIVE ACTION
12/12/79	Project Engineer

13. CORRECTIVE ACTION TAKEN

14. DATE COMPLETED	15. SUBMITTED BY RESPONSIBLE AUTHORITY	16. CORRECTIVE ACTION ACCEPTED	NOT ACCEPTED	QAE

17. VERIFICATION ACTIONS BY QAE

18. IMPLEMENTATION ACCEPTED	NOT ACCEPTED	QAE	DATE

19. DISTRIBUTION

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SFP 20871
G1001659-01

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QUALITY ASSURANCE FINDING

QAF SA-80 AI H-54

1. PROJECT/DEPARTMENT/SUPPLIER	2. TYPE OF AUDIT/SURVEILLANCE	3. AUDIT IDENT.
Sml Pipe Design & Stress Group	Special — OFFICE ☐ FIELD ☒	24-5-1
4. AUDITOR (Auditor	5. DATE OF FINDING	7. DISCUSSED WITH
H. Ablondi/A. McClure Trainee)	11/6/79	L. Snyder 11/9/79 A. Sidhu 11/12/79
6. CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.		
7220-M-343(Q) Rev. 4 Para. 8.1.7		

8. REQUIREMENTS

Para. 3.1 of Spec. 7220-M-343(Q) states in part that all field provided materials shall as a minimum, meet the requirements of ASME B/PV Code Sec. III Div. 1 1971 Ed. S-73 Addenda.

Para. 4.0 of Spec. 7220-M-243(Q): Material requirements are the same as for Spec. 7220-M-343(Q).

9. FINDING

FSK-2CCB-61-H2 and FSK-2CCB-61-1, H-3 Bill of Material Block indicates material type and size of pipe only; ASME/ASTM designation not indicated.

10. RECOMMENDED ACTION/S

(1) Revise referenced FSK's to indicate the ASME/ASTM designation.

(2) Review output of responsible individuals for similar ommissions and document results.

(3) Verify that, where the ASME/ASTM material is not indicated, the subject fabricated component support or restraint utilized ASME or equivalent material.

11. SCHEDULED COMPLETION DATE	12. RESPONSIBILITY FOR CORRECTIVE ACTION
12/12/79	Project Engineer

13. CORRECTIVE ACTION TAKEN

14. DATE COMPLETED	15. SUBMITTED BY RESPONSIBLE AUTHORITY	16. CORRECTIVE ACTION		
		ACCEPTED	NOT ACCEPTED	QAE

17. VERIFICATION ACTIONS BY QAE

18. IMPLEMENTATION			DATE
ACCEPTED	NOT ACCEPTED	QAE	

19. DISTRIBUTION

SFP 20871
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QUALITY ASSURANCE FINDING

QAF SA-81
A.I. H-56
PAGE 1 OF 1

1. PROJECT/DEPARTMENT/SUPPLIER	2. TYPE OF AUDIT/SURVEILLANCE	3. AUDIT IDENT.
Sml Pipe Design & Stress Group	Special (OFFICE ☐ FIELD ☒)	24-5-1
4. AUDITOR	5. DATE OF FINDING	7. DISCUSSED WITH
H. Ablondi/A. McClure (Auditor Trainee)	11/7/79	L. Snyder 11/9/79 A. Sidhu 11/12/79
6. CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.		
7220-M-343 Rev. 4 Dwg. M-493 VII Note (3) & FSK-M-1FCB-46-1 Rev.1		

8. REQUIREMENTS

Mechanical fasteners must be used on pipe supports in the vicinity of flanges, strainers, pump nozzles, etc. without resorting to cutting or welding to facilitate removal of the support section.

9. FINDING

Contrary to the above, hanger No. H-2 and H-3, utilize fasteners that are welded. Reference FSK-M-1FCB-46-1-H2(Q) Rev. 0 and FSK-M-1FCB-46-1-H8(Q) Rev. 1.

10. RECOMMENDED ACTION/S

(1) Revise FSK's to reflect Spec. Requirements.

(2) Review other FSK's for similar deviations and document results of such reviww.

11. SCHEDULED COMPLETION DATE	12. RESPONSIBILITY FOR CORRECTIVE ACTION
12/12/79	Project Engineer

13. CORRECTIVE ACTION TAKEN

14. DATE COMPLETED	15. SUBMITTED BY RESPONSIBLE AUTHORITY	16. CORRECTIVE ACTION		
		ACCEPTED	NOT ACCEPTED	QAE

17. VERIFICATION ACTIONS BY QAE

18. IMPLEMENTATION			DATE
ACCEPTED	NOT ACCEPTED	QAE	

19. DISTRIBUTION

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QUALITY ASSURANCE FINDING

QAF SA-82
A.I. H-57

1. PROJECT/DEPARTMENT/SUPPLIER	2. TYPE OF AUDIT/SURVEILLANCE	3. AUDIT IDENT.
Small Pipe Design & Stress Group	Special — OFFICE ☐ FIELD ☒	24-5-1
4. AUDITOR	5. DATE OF FINDING	7. DISCUSSED WITH
H. Ablondi w/A. McClure (Auditor Trainee)	11/9/79	L. Snyder 11/12/79 A. Sidhu 11/12/79
6. CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.		
Spec. M-343 Rev. 4 Para. 6.15.1 and 7.1.4		

8. REQUIREMENTS

Para. 6.15.1: States in part that STD supports shall be used wherever possible.

Para. 7.1.4: States in part that STD Pipe supports, restraints, anchors and structural attachments are shown on dwg. 7220-M-493.

9. FINDING

Contrary to the above none of the referenced STD supports have been used.

Note: (1) In lieu of the standards, other detailed components have been utilized, i.e., PGS-104, 103, 102, 114, and 113.

10. RECOMMENDED ACTION/S

1) Justify not using standard details (para. 7.1.4) or revise Spec. M-343 to cover this deviation.

11. SCHEDULED COMPLETION DATE	12. RESPONSIBILITY FOR CORRECTIVE ACTION
12/12/79	Project Engineer

13. CORRECTIVE ACTION TAKEN

14. DATE COMPLETED	15. SUBMITTED BY RESPONSIBLE AUTHORITY	16. CORRECTIVE ACTION		
		ACCEPTED	NOT ACCEPTED	QAE

17. VERIFICATION ACTIONS BY QAE

18. IMPLEMENTATION			DATE
ACCEPTED	NOT ACCEPTED	QAE	

19. DISTRIBUTION

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QUALITY ASSURANCE FINDING

QAF SA-83
A.I. H-58

1. PROJECT/DEPARTMENT/SUPPLIER	2. TYPE OF AUDIT/SURVEILLANCE	3. AUDIT IDENT.
Small Pipe Design & Stress Group	Special — OFFICE ☐ FIELD ☒	24-5-1
4. AUDITOR	**5. DATE OF FINDING**	**7. DISCUSSED WITH**
H. Ablondi w/A. McClure (Auditor Trainee)	11/7/79	L. Snyder 11/9/79 A. Sidhu 11/12/79
6. CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.		
7220-M-343 Rev. 4; Paragraph 6.1.2		

8. REQUIREMENTS

1) FSK M-1CCB-62-1 Rev. 0 indicates 4" insulation for line 1CCB-62-1.
2) Paragraph 6.1.2 (above) states in part that pipe supports shall be designed such that temperature of 150°F for concrete and 200°F for structural steel will not result.

9. FINDING

1) FSK M-1CCB-62-1, H1 does not reflect insulation at support interface with existing steel.
2) Contrary to requirements of 6.1.2 (M-343) hanger no. FSK-M-1CCB-62-1; H1(Q) indicates that there is no provision to prevent transfer of heat from the piping system to the structural steel, if the line is insulated as required above (ref. 1) in the present "as built" condition.

10. RECOMMENDED ACTION/S

1) Revise drawing to reflect insulation requirements.
2) Revise drawing as required (ref. 1).
3) Review other FSKs for similar conditions and document results of such review.

11. SCHEDULED COMPLETION DATE	12. RESPONSIBILITY FOR CORRECTIVE ACTION
12/11/79	Project Engineer

13. CORRECTIVE ACTION TAKEN

14. DATE COMPLETED	15. SUBMITTED BY RESPONSIBLE AUTHORITY	16. CORRECTIVE ACTION		
		ACCEPTED	NOT ACCEPTED	QAE

17. VERIFICATION ACTIONS BY QAE

18. IMPLEMENTATION			DATE
ACCEPTED	NOT ACCEPTED	QAE	

19. DISTRIBUTION

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QUALITY ASSURANCE FINDING

QAF SA-84
A.I. H-59
PAGE 1 OF 2

1. PROJECT/DEPARTMENT/SUPPLIER	2. TYPE OF AUDIT/SURVEILLANCE	3. AUDIT IDENT.
Small Pipe Design & Stress Group	Special — OFFICE [ ] FIELD [X]	24-5-1
4. AUDITOR	5. DATE OF FINDING	7. DISCUSSED WITH
H. Ablondi w/A. McClure (Auditor Trainee)	11/9/79	A. Sidhu 11/12/79
6. CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.		
Spec. M-343 Rev.4 Para. 8.1.4(S) Spec. G-27 Rev.11 Form 84		

8. REQUIREMENTS

1) Spec. M-343 Para. 8.1.4(S) states in part that the detail shall contain all required nondestructive examination.

2) NF5221 per Sheet 13 Form 84 of Spec. G-27 required LP or MT of Class 2 supports. Note 23 of the referenced Form 84 states welds in primary members shall be MT or PT examined.

9. FINDING

1) Contrary to item (1) above a conflict exists between two FSK Support details, viz FSK-M-1CCB-61-H2 & FSK-M-2CCB-61-H1.

Item 5 listed on bill of materials for FSK-M-2CCB-61-1H1 and item 4 listed on bill of material for FSK-M-1CCB-61-1-H2 consist of A-36. Conditions for both supports are noted in Lateral/flat & Fy conditions as being the same.

(Continued on Page 2)

10. RECOMMENDED ACTION/S

1) Revise discrepant FSKs to reflect Specifications' requirements.
2) Apprise the responsible individual(s) of the above conflicts and omission.
3) Review the output of the responsible individual(s) for similar conditions and document the results.

11. SCHEDULED COMPLETION DATE	12. RESPONSIBILITY FOR CORRECTIVE ACTION
12/12/79	Project Engineer

13. CORRECTIVE ACTION TAKEN

14. DATE COMPLETED	15. SUBMITTED BY RESPONSIBLE AUTHORITY	16. CORRECTIVE ACTION		
		ACCEPTED	NOT ACCEPTED	QAE

17. VERIFICATION ACTIONS BY QAE

18. IMPLEMENTATION			DATE
ACCEPTED	NOT ACCEPTED	QAE	

19. DISTRIBUTION

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9. FINDING (Cont'd)

The conflict is noted in the columns where the types of supports and support elements are checked.

EXAMPLE:

a) Item 4 of the bill of materials is checked Linear and Primary and the NDE requirements noted as para. NF5221 i.e. MP&PT for the connecting welds for Support No. FSK-M-1CCB-61-1-H2.

b) Item 5 of the bill of materials is checked Plate and Shell and Primary and the NDE requirements noted as NF5222 i.e. visual only for the same connecting type welds for Support No. FSK-M-2CCB-61-1-H2.

The visual, i.e. NF5222, designation for primary Plate and Shell type welded connections is contrary to the 1974 edition of the referenced code in para. 2.1.1 of Spec. M-343 Rev. 4.

2. Item 1 a 3"x3"x3/8" ∠ designated Linear and Primary on FSK-M-2CCB-62-1-H3 has Weld Symbol noted in detail. No NDE reference is noted between existing W 30 x 99 and the ∠ 3"x3"x3/8".

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QUALITY ASSURANCE FINDING

QAF SA-85
A.I. H-60
PAGE 1 OF 1

1. PROJECT/DEPARTMENT/SUPPLIER	2. TYPE OF AUDIT/SURVEILLANCE	3. AUDIT IDENT.
Sml Pipe Design & Stress Group	Special — OFFICE ☐ FIELD ☒	24-5-1
4. AUDITOR (auditor trainee)	5. DATE OF FINDING	7. DISCUSSED WITH
H. Ablondi/A. McClure	11/8/79	L. Snyder 11/8/79 A. Sidhu 11/12/79

6. CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.
Spec. 7220-M-343 Rev. 4 Para 8.1.7 item h. "Regarding Hanger Details".

8. REQUIREMENTS

The referenced Para. states in part that each sheet/detail shall contain the following information as a minimum:

h. Properly marked bill of materials with size and shape clearly indicated.

9. FINDING

Contrary to the above requirement the plate material between the pipe and support -element thicknesses are not detailed on FSK's M-1HBC-196-2-H1 and HBC-197-1-H1. Note: The statement "Thickness by Field." is indicated in lieu of the thickness.

10. RECOMMENDED ACTION/S

(1) Revise FSK's to indicate required thicknesses.

(2) Apprise the responsible individual(s) of this omission.

(3) Review of FSK's detailed by the responsible individual(s) for similar omission and document the results of the review.

11. SCHEDULED COMPLETION DATE	12. RESPONSIBILITY FOR CORRECTIVE ACTION
12/12/79	Project Engineer

13. CORRECTIVE ACTION TAKEN

14. DATE COMPLETED	15. SUBMITTED BY RESPONSIBLE AUTHORITY	16. CORRECTIVE ACTION		
		ACCEPTED	NOT ACCEPTED	QAE

17. VERIFICATION ACTIONS BY QAE

18. IMPLEMENTATION			DATE
ACCEPTED	NOT ACCEPTED	QAE	

19. DISTRIBUTION

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QUALITY ASSURANCE FINDING

QAF SA-86
A.I. H-61
PAGE 1 OF 1

1. PROJECT/DEPARTMENT/SUPPLIER	2. TYPE OF AUDIT/SURVEILLANCE	3. AUDIT IDENT.
Sml Pipe Design & Stress Group	Special (OFFICE ☐ FIELD ☒)	24-5-1
4. AUDITOR	5. DATE OF FINDING	7. DISCUSSED WITH
H. Ablondi/A. McClure (Auditor trainee)	11/8/79	L. Snyder 11/9/79 A. Sidhu 11/12/79
6. CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.		
Spec. 7220-M-343 Rev. 4 Para. 6.7.6		

8. REQUIREMENTS

Para. 6.7.6 of the referenced specification states that field welds made on columns or loaded beams and girders shall be parallel to their longitudinal axes.

9. FINDING

Contrary to the above requirements two transverse fillet welds were designated on FSK-M-1CCB-62-1-H1. The welds were designated at each end of a 2 inch wide two directional strap restraint that interfaced with a W30 x 99 structural member.

10. RECOMMENDED ACTION/S

(1) Revise FSK to reflect specification requirements.

(2) Apprise responsible individual(s) output for similar deviations and

(3) Review the responsible individual(s) output for similar deviations and document the results of the review.

11. SCHEDULED COMPLETION DATE	12. RESPONSIBILITY FOR CORRECTIVE ACTION
12/12/79	Project Engineer

13. CORRECTIVE ACTION TAKEN

14. DATE COMPLETED	15. SUBMITTED BY RESPONSIBLE AUTHORITY	16. CORRECTIVE ACTION		
		ACCEPTED	NOT ACCEPTED	QAE

17. VERIFICATION ACTIONS BY QAE

18. IMPLEMENTATION			DATE
ACCEPTED	NOT ACCEPTED	QAE	

19. DISTRIBUTION

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QUALITY ASSURANCE FINDING

QAF No. SA-87
AI. H-62

1. PROJECT/DEPARTMENT/SUPPLIER	2. TYPE OF AUDIT/SURVEILLANCE	3. AUDIT IDENT.
Sm. Pipe Dsgn. & Stress Gps.	Special — OFFICE ☐ FIELD ☒	24-5-1
4. AUDITOR	**5. DATE OF FINDING**	**7. DISCUSSED WITH**
W. Ablondi w/A. McClure (Auditor Trainee)	11/9/79	L. Snyder 11/9/79 A. Sidhu 11/12/79
6. CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.		
Spc. M-343 Rev. 4 Para. 6.7.8 & Table 6.7.8		

8. REQUIREMENTS

Para. 6.7.8 of the referenced specification states that fillet weld joints shall be the minimum shown on Table 6.7.8 & governed by the thicker of the two members, not to exceed the thickness of the thinner member.

9. FINDING

Contrary to the above requirement, the below FSK support/restraint details indicate fillet welds that are not in accordance with the referenced table.

FSK No.	Size Spec.	Size Noted
1FCB-46-1-H4	5/16"	1/4"
1FCB-54-1-H1	5/16"	1/4"
1CCB-62-1-H3	3/16"	1/8"
2CCB-62-1-H1	3/16"	1/8"
2CCB-61-1-H1	3/16"	1/8"

10. RECOMMENDED ACTION/S

1) Revise FSK's to reflect spec. requirements.
2) Apprise responsible individual(s) of the above deviation.
3) Review the output of the responsible individual(s) for similiar deviations and document the results.

11. SCHEDULED COMPLETION DATE	12. RESPONSIBILITY FOR CORRECTIVE ACTION
12/12/79	Project Engineer

13. CORRECTIVE ACTION TAKEN

14. DATE COMPLETED	15. SUBMITTED BY RESPONSIBLE AUTHORITY	16. CORRECTIVE ACTION		
		ACCEPTED	NOT ACCEPTED	QAE

17. VERIFICATION ACTIONS BY QAE

18. IMPLEMENTATION			DATE
ACCEPTED	NOT ACCEPTED	QAE	

19. DISTRIBUTION

SFP-20871
G1001659.01

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BECHTEL

QUALITY ASSURANCE FINDING

QAF SA-88
A.I. H-63

1. PROJECT/DEPARTMENT/SUPPLIER	2. TYPE OF AUDIT/SURVEILLANCE	3. AUDIT IDENT.
Small Pipe Design & Stress Group	Special — OFFICE ☐ FIELD ☒	24-5-1
4. AUDITOR	5. DATE OF FINDING	7. DISCUSSED WITH
H. Ablondi w/A. McClure (Auditor Trainee)	11/9/79	L. Snyder 11/9/79 A. Sidhu 11/12/79
6. CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.		
7220-M-343 Rev.4 - Paragraph 6.8 & Spec. 7220-M-326 Paragraph 5.8		

8. REQUIREMENTS

Para. 6.8 of Specification M-343, states in part that threaded connections shall be secured by common locking devices. The order of preference is: Jam nuts w/hex nut, (2) Jam nuts (non-tension member) staking, tack welding & "C" clips. (Ref. M-326, Rev. 4, para. 5.8. Current revision of Spec. M-326 rev. 4, para. 5.8 states that all threaded connections should be secured etc...while spec. M-343, rev.4, para. 6.8 states that all threaded connections shall be secured by one of the methods indicated in the paragraph.

9. FINDING

1) FSK-M-PFS-114 indicates SA-306 Gr.B "U" bolt. No reference to type of nut(s) & locking device(s) indicated. Although detail indicates six nuts per "U" bolt FSK-M-PGS-114 and PGS-103 do not indicate double nuts or locking devices.
2) FSKs M-2CCB-62-1H2 & H3 indicate a Fig. 211 Grinnell sway strt. Mfg'r locking devices consist of a clip on the rear brkt-pivot ends. Jam nuts are noted for each rod end. The pipe clamp is not furnished with any of the above referenced devices. A review of field material requisitions for Fig. 211 sway braces was performed during the audit. The FMR's did not specify any addtnl. locking devices other than that noted above.

10. RECOMMENDED ACTION/S

1) Revise FSKs to indicate locking devices where required.
2) Apprise the responsible individuals of the above omission.
3) Revise specification M-326 Para. 5.8 to be consistent with spec. M-343 para. 6.8
4) Review other FSKs that utilize threaded connections to assure compliance to the applicable specification and document results.

Draft copy provided to Engrg. Supv. on 11-12-79

11. SCHEDULED COMPLETION DATE	12. RESPONSIBILITY FOR CORRECTIVE ACTION
12/12/79	Project Engineer

13. CORRECTIVE ACTION TAKEN

14. DATE COMPLETED	15. SUBMITTED BY RESPONSIBLE AUTHORITY	16. CORRECTIVE ACTION		
		ACCEPTED	NOT ACCEPTED	QAE

17. VERIFICATION ACTIONS BY QAE

18. IMPLEMENTATION			DATE
ACCEPTED	NOT ACCEPTED	QAE	

19. DISTRIBUTION

SFP 20871
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QUALITY ASSURANCE FINDING

QAF SA-89
A.I. H-64

1. PROJECT/DEPARTMENT/SUPPLIER	2. TYPE OF AUDIT/SURVEILLANCE	3. AUDIT IDENT.
Small Pipe Design & Stress Group	Special — OFFICE ☐ FIELD ☒	24-5-1
4. AUDITOR (Auditor)	5. DATE OF FINDING	7. DISCUSSED WITH
H. Ablondi w/A. McClure Trainee	11-9-79	L. Snyder 11-12-79 A. Sidhu 11-12-79
6. CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.		
Spec. M-343 Rev.4 para. 7.9.3, 7.8.9, and 8.1.7(Q)		

8. REQUIREMENTS

1) Para. 7.9.3 states in part that where possible, the engineer shall provide an anchor immediately downstream of the root valve(s) in order to isolate the hanger critical from the non-hanger critical erection of piping.
2) Para. 7.8.9 states that the support no. & type must be noted on the ISO.
3) Para. 8.1.7(Q) states in part that the detail shall contain as a minimum where applicable: piping, lay-out, ISO drawing, and Civil drawing.

9. FINDING

1) FSK-M-1FCB-46-1 from DHR pump-1P60B to drain does not indicate an △ anchor symbol that would indicate compliance to the last sentence of the para. 7.9.3 and para. 7.8.9.
2) FSK-M-1FCB-46-1-H7 Rev. 1 note: indicates the support was deleted. Rev. 1 is dated 10-3-79.
3) No reference to civil drawings noted, example: FSK-1HBC-197-2 H-1 & H-3; FSK-1CCB-61-1 H-2 and H-3; 1FCB-46-1 H4 and H5. These FSKs include structural steel interface.

10. RECOMMENDED ACTION/S

1) If FSK-M-1FCB-46-1 H6 is an affective anchor, revise ISO to indicate an anchor.
2) FSK-M-1FCB 46-1 H6 rev. 2 dated 9-15-79 does not indicate that hanger H7 was combined with H6.
3) Revise drawings to indicate applicable civil drawing(s) as required.

11. SCHEDULED COMPLETION DATE	12. RESPONSIBILITY FOR CORRECTIVE ACTION
12/12/79	Project Engineer

13. CORRECTIVE ACTION TAKEN

14. DATE COMPLETED	15. SUBMITTED BY RESPONSIBLE AUTHORITY	16. CORRECTIVE ACTION		
		ACCEPTED	NOT ACCEPTED	QAE

17. VERIFICATION ACTIONS BY QAE

18. IMPLEMENTATION			DATE
ACCEPTED	NOT ACCEPTED	QAE	

19. DISTRIBUTION

SFP 20871
G1001659.01

90007116

X

QUALITY ACTION REQUEST

cc: J. Corley
D. Miller
W. Bird

AI: H-48

From: (1)
L. A. Dreisbach

To: (2)
L. E. Davis

Control Document ref.: (3)
QADM Sec. C. No. 101, Rev. 1

QAR Ident. No.: (4)
SD-281

Action Requested: (5)

Our quality trend-tracking program shows an increase in "elect equipment component damage." The main area is in motor operated valves where oil was found to be leaking from the declutch levers which are mounted on the bottom (see FIG 1 of attachment). A list of Movs and its associated discrepancy report is attached.

1. Determine if oil leakage is a problem with other Movs in the same orientation
2. Determine if oil leakage is a supplier or a maintenance problem and take the appropriate corrective action.

Signature: (6) Date: (7) 11/5/79

Reply Requested by: (8) 11/23/79

Reply: (9)

Log No. _____ File No. _____
Remarks Reqd. _____ Date _____
QA Action Item No. _____
PQAE
Resp. Cont.
Elect (1)
Elect (2)
Resp. Weld
Mech
Tech Gvr
Planning

Signature: (10) Date: (11)

Action Verified: (12) Date: (13)

8/2/74

WHITE – Return to sender CANARY – Addressee's file PINK – Sender's file

BPC 20877
G1001649 05

90007117

Attachment to QAR SD-281

DR No.	Mov Tag No.	P. O. No.
E 1577	1MO-1620B	M132
E 1589	1MO-1903	M132
E 1587	1MO-1907	M132
E 1591	1MO-1979	M132
E 1578	2MO-1720B	M132
E 1588	2MO-1937	M132
E 1590	2MO-1985	M132

90007118

LUBRICATION INSTRUCTIONS AND LUBRICANT RECOMMENDATIONS

The Limitorque valve control is shipped with grease in the unit. However, before operating any unit remove the grease plug and check on the condition of the lubricant. Lubrication inspection is recommended at regular intervals of approximately six months. The normal amount of grease that various size units should contain is as follows:

UNIT SIZE	AMOUNT GREASE LBS.
SMB-000	1½
SMB-00	4
SMB-0, SB-0	9
SMB-1, SB-1	12
SMB-2, SB-2	13
SMB-3, SB-3	20
SMB-4, SB-4	35
SMB-5	93

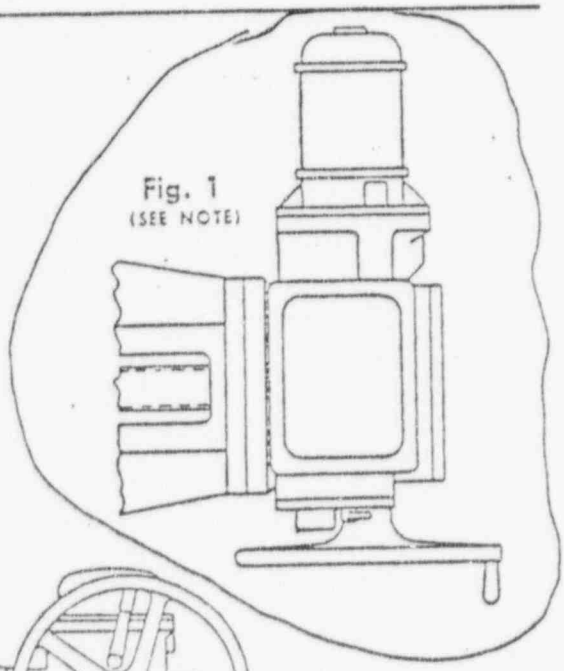


Fig. 1
(SEE NOTE)

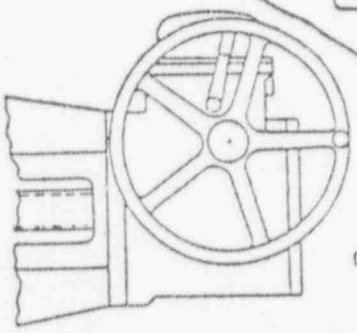


Fig. 2
(SEE NOTE)

NOTE: With Limitorque operator mounted in a position as shown in Figure 1 or Figure 2, additional lubricant must be used to completely fill the gear housing. Only a small amount of air space should remain.

Limitorque valve controls are built to operate on the immersion principle. The enclosing casing is leakproof regardless of operating position. However, where possible, the motors should be mounted in a horizontal position to prevent the possibility of oil seepage into the motor housing.

The lubricant should not be corrosive to gears, ball or roller bearings, and must be neutral in reaction. The lubricant must not contain any grit, abrasive or fillers. It should not precipitate sediment, nor separate at temperatures up to 300°F. The lubricant must also have good resistance to oxidation; and must be non-channeling.

There are many lubricants suitable for service in Limitorque valve operators. A list of such lubricants is shown below. Any lubricant equal to these is suitable.

Manufacturer	Lubricant*	Temperature Range
Humble Oil Co.	Humble Nebula EPI	−10°F to +150°F
	Humble P-290	−40°F to +120°F
Sun Oil Co.	Prestige 740-AEP	−10°F to +150°F
Shell Oil Co.	Darina EPO	−10°F to +150°F
Texaco, Inc.	Texaco All-Temp	−20°F to +150°F
	Marfak 00	+20°F to +120°F
	Marfak 0	+30°F to +150°F
Standard Oil of Ohio	Sohitran No. 1	−10°F to +150°F
Standard Oil of Ind.	Stanolith No. 42	−10°F to +150°F
Mobil Oil Co.	Mobilplex EPO	−10°F to +150°F
Cities Service Oil Co.	Citgo AP Grease	−20°F to +150°F
ARCO	Litholine HEP-00	−20°F to + 225°F
Master Lubricants Co.	M-1 Special	−20°F to +150°F
Tidewater Oil Co.	Veedol Alitho 10	−10°F to +150°F
Gulf Oil Corp.	Gulf Precision Grease No. 0	+20°F to +120°F
Pure Oil Co.	Poco HT Grease B	0°F to +120°F

*For extremely high or low temperature consult factory.

For Geared Limit Switch Gears only, use Humble "Beacon 325" grease (−60°F to +150°F).

Motors furnished with Limitorque valve controls are lubricated for life.

For the lubrication of Air Motors, the following lubricants or the equivalent are recommended: At temperatures −20°F to +130°F use Texas Co. RegalStarfac #2 or equal in any grease fittings.

For line lubricators use No. 10 S.A.E. oil for temperatures below +50°F and No. 20 S.A.E. oil for temperatures above +50°F.

90007119

X

QUALITY ACTION REQUEST

cc: J. Corley
D. Miller
W. Bird

AI: H-50

From: (1)
L. A. Dreisbach

To: (2) L. E. Davis

Control Document ref.:spec. (3) C-18 Rev 10 Attachment 1 Appendix B

QAR Ident. No.: (4) SD-284

Action Requested: (5)

Document Category Number 1.1E of referenced G-321 D Form requires prior approval of shop detail drawings. Contrary to the above, Bechtel QC on 10/31/79 identified the following revised drawings (unapproved by Bechtel) in use by Graver Subcontractor Construction and Quality Assurance personnel in the field. Additionally, revisions of Graver QA manual (Rev. 1 and 2) other than approved by Bechtel are in use in the field. It is noted that actions to correct identified drawings and QA manual revision are currently in process.

(CONTINUED ON THE FOLLOWING ATTACHED PAGES)

Signature: R.C. Heller for L.A. Dreisbach (6)

Date: 11/1/79 (7)

Reply Requested by: Interim resp. 11/16/79 Final response 12/14/79 (8)

Reply: (9)

Job 7220-QA-Received
Log No. _____ File No. 02200
Response Rec'd _____ Date 11/1
QA Action Item No. H-50

Route	Info	Act	Comment
PCAE			
Resp. Eng.			
Elect (1)			
Elect (2)			
Civil/Mch			
Pipe/Weld			
Inst.			
Trn Ovr			
Trend			
Dept.			

T_{4_9} - 1

Signature: (10) Date: (11)

Action Verified: (12) Date: (13)

8.2.74

WHITE — Return to sender CANARY — Addressee's file PINK — Sender's file

SPC 10877
0-1001649.05

90007120

Graver No.	Graver Rev. QA	Graver Rev. Cont.
NL 12045	4	4
NL 12046	2	2
NL 12047	1	1
NL 12048	5	5
NL 12049	2	2
NL 12050	3	3
NL 12051	2	2
NL 12052	4	4
NL 12053	2	2
NL 12054	1	1
NL 12055	1	1
NL 12056	0	0
NL 12057	2	2
NL 12058	3	3
NL 12059	3	3
NL 12060	1	1

The following actions are requested:

1. Initiate requests for Graver to provide controls in their Field Activities QA Manual, Section VI-B and Corporate QA manual Section III-A to preclude recurrence of utilizing unapproved drawings (by Bechtel) in the field. Drawings in use by Graver field personnel should show evidence of Bechtel approved status.

2. Review and evaluate the generic and programmatic controls necessary to preclude recurrence since this similar concern has been previously identified by Bechtel QA Finding SA-50 (J. L. Manta procedure JLM-450-A-1 and Addendum No. 2 to QA Manual implemented prior to Bechtel approval).

Please provide this office an interim response as to action initiated concerning Graver drawings, QA manual revisions and requested QA program changes (identified in 1 above) by November 16, 1979. Final response requested by December 14, 1979.

90007122

QUALITY ACTION REQUEST

cc: J. Corley
D. Miller
W. Bird

AI: H-51

From: R. Hollar (1)		
To: W. L. Barclay (2)	Control Document ref.: PQCI 7220/SC-1.16 (3)	QAR Ident. No.: SD-285 (4)
Action Requested:	S/C No. C-18 (5)	

On 10-31-79, Quality Control performed a review of Graver drawings in use on site at the request of QA and determined that fifteen out of sixteen drawings reviewed were not approved by Bechtel for the current revision in use. Action was taken immediately to correct this concern. (This contract initiated work on site eight weeks ago).

It is requested that Quality Control review this PQCI and other PQCI's related to surveillance of subcontractor design document control activities for initiation of generic and programmatic changes to preclude recurrence. PQCI SC-1.16 does not clearly identify reviewing subcontractor working drawings, specifications, manuals

Signature: VADreschsch (6)	Date: 11/1/79 (7)	Reply Requested by: 12/1/79 (8)

Reply: (9)

Signature: (10)	Date: (11)
Action Verified: (12)	Date: (13)

8/2/74

WHITE – Return to sender CANARY – Addressee's file PINK – Sender's file

BPC 20877
G1001649 05

90007123

and procedures for required approvals and latest applicable revisions and approvals in a timely manner.

Similar document Control deficiencies have been previously identified for the following subeontracts:

S/C No.	Subcontractor	Finding
A-15	J. L. Manta	SA-50
M-151	Zack	NRC 78-07-03
C-208	U. S. Testing	QAR SD-268
C-208	U. S. Testing	QAF SA-62.

90007124

X

REQUEST

D. Miller
W. Bird

AI: H-55

From: L. A. Dreisbach (1)		
To: L. E. Davis (2)	Control Document ref.: Dwg. C-618 (Q) Rev. 6 (3)	QAR Ident. No.: SD-286 (4)

Action Requested: (5)

Attached IOM BEBC-3364, Curtis to Davis, and QAR SD-203 have identified generic unacceptable non-Q attachments to containment liner relative to location devations from liner stiffner angles.

Please complete the following actions:

1. Review all Q and non-Q attachments currently installed and identify by NCR those determined to be nonconforming in accordance with the referenced IOM.

2. Incorporate into a Field Instruction the Engineering recommendation of incorporating all Q and non-Q attachments in field sketches with design

(Continued on Page 2)

Signature: (6)	Date: 11/8/79 (7)	Reply Requested by: Dec. 21, 1979 (8)

Reply: (9)

90007125

QUALITY ACTION
REQUEST

Action Requested: (Cont'd)

loads included at liner and submitting to Project Engineering every three months.

3. Identify method of field coordination with Resident Engineer.

4. Determine and establish interface mechanism with Quality Control so that all attachments (Q and non-Q) to Q-listed liner plate are verified for acceptance to established Engineering criteria.

Inter-office Memorandum

BEBC- 3364

To L.E. Davis

Date October 24, 1979

Subject Midland Plant Units 1 & 2
Job 7220
Response QAR SD-203
(Attachments to Containment
Liner Plate)
File: 0274, C-50

From L.H. Curtis

Of Engineering

At Ann Arbor

Copies to

R. Baltazar
L. Curtis
P. Goguen.
T. Johnson
W. Moring
A. Ozeroff
R. Schulman
R. Yuan
Com Log

This is a complete response to QAR SD-203, and advises construction of the engineering concern for Q and non-Q attachments to the containment liner. Electrical sketches of non-Q as-built attachments indicate a highly unacceptable deviation from liner stiffener angles. In order to improve control and documentation, engineering recommends that all Q and non-Q attachments be incorporated in field sketches with design loads included at the liner and submitted to project engineering every 3 months. Engineering has evaluated the liner plate attachment for tolerance. This tolerance of location from embedded stiffener angle is as follows unistrut (P1,000), ±1 inch; C3x6, ±1/2 inch; and other size unistrut, ±1/2 inch. This tolerance shall be closely followed for all installed attachments. All attachments which do not meet this tolerance shall be removed and redesigned. Future attachments shall meet the specification tolerance (±1 inch for unistrut and ±1/2 inch for all other attachments). Drawing C-618 will be revised to incorporate these tolerances. It is suggested that engineering be kept abreast of this work and that the field coordinate its effort with the resident engineer, R. Schulman.

for L.H. Curtis

90007127

QUALITY ACTION REQUEST

cc: J. Corley
D. Miller
W. Bird

AI: H-65

From: L. A. Dreisbach (1)

To: L. E. Davis (2) | Control Document ref.: FIT-1.100 (3) | QAR Ident. No.: SD-287 (4)

Action Requested: (5)

FIT-1.100 says in part that "A CWR shall be used by Bechtel Construction to obtain work clearance . . . to perform physical work on items turned over to CPCo." Contrary to this cable 1AA05001A was rerouted/reterminated without CWR after system 1PBA (of which referenced cable forms a part) was turned over to the client.

1. Initiate CWR to correct the discrepancy.
2. Take appropriate actions (e.g., indoctrination of cognizant field engineers on the requirements of Turn Over procedures) to preclude recurrence.

Signature: R.S. R. Smith for LAD. (6) | Date: 11/15/79 (7) | Reply Requested by: 12/7/79 (8)

Reply: (9)

Log No. File No. Date 11/27
Response Reqd.
QA Action Item No.

Route	Initial	Date
PQAE		
Resp. Cor.		
Elect (1)		
Elect (2)		
Civ/Mch		
Pipe/Weld		
Inst.		
Trn Ovr		
Trend		
Sect.		

Signature: (10) | Date: (11)

Action Verified: (12) | Date: (13)

8/2/74

WHITE – Return to sender CANARY – Addressee's file PINK – Sender's file

BPC 20877
G1001649-05

90007128

X

QUALITY ACTION REQUEST

W. Bird
D. Miller

AI: H-66

From: (1)
Phil Falkenborg

To: (2)	Control Document ref.: (3)	QAR Ident. No.: (4)
L. Curtis	7220-M-151 A & B	SD-288

Action Requested: (5)

Upon agreement of the affected organization that the ZACK company provided weld defect minimum allowable samples are acceptable add the following statement to the listed specification paragraph (and any other I have overlooked):

7220-M-151A { para. 14.8.1, para. 14.8.5 } para. 12.8.1, para. 12.8.5 } 7220-M-151C

7220-M-151B { para. 15.8.1, para. 15.8.5

Statement-refer to approved visual standard (number currently unknown) for minimum acceptable quality.

(CONTINUED ON THE FOLLOWING ATTACHED PAGE 2 of 2)

Signature: (6)	Date: (7)	Reply Requested by: (8)
Phillip E. Falkenborg	11/19/79	12/7/79

Reply: (9)

Signature: (10)	Date: (11)
Action Verified: (12)	Date: (13)

8/2/74

WHITE – Return to sender CANARY – Addressee's file PINK – Sender's file

BPC 20877
G1001649.05

90007129

The above action when completed will prevent future questions concerning the intent of the specification or the authority of the visual standards.

90007130

X

QUALITY ACTION REQUEST

cc: J. Corley
D. Miller
W. Bird

AI: H-67

From: Phil Falkenborg (1)

To: L. Sokol (2)

Control Document ref.: (3)

QAR Ident. No.: SD-289 (4)

Action Requested: (5)

The attached trend chart for performance area 32 "Supplier Control" shows an increasing trend of inadequate documentation from suppliers.

You are requested to institute corrective action to reverse this adverse trend.

This subject has also been a past item of NRC concern and they have recently re-expressed discomfort (reference CPCo Memo Bird to Marguglio dated 10/16/79 Page 4 general discussion).

Signature: Phillip E. Falkenborg (6)

Date: 11/21/79 (7)

Reply Requested by: 12/14/79 (8)

Reply: (9)

Signature: (10)

Date: (11)

Action Verified: (12)

Date: (13)

8/2/74

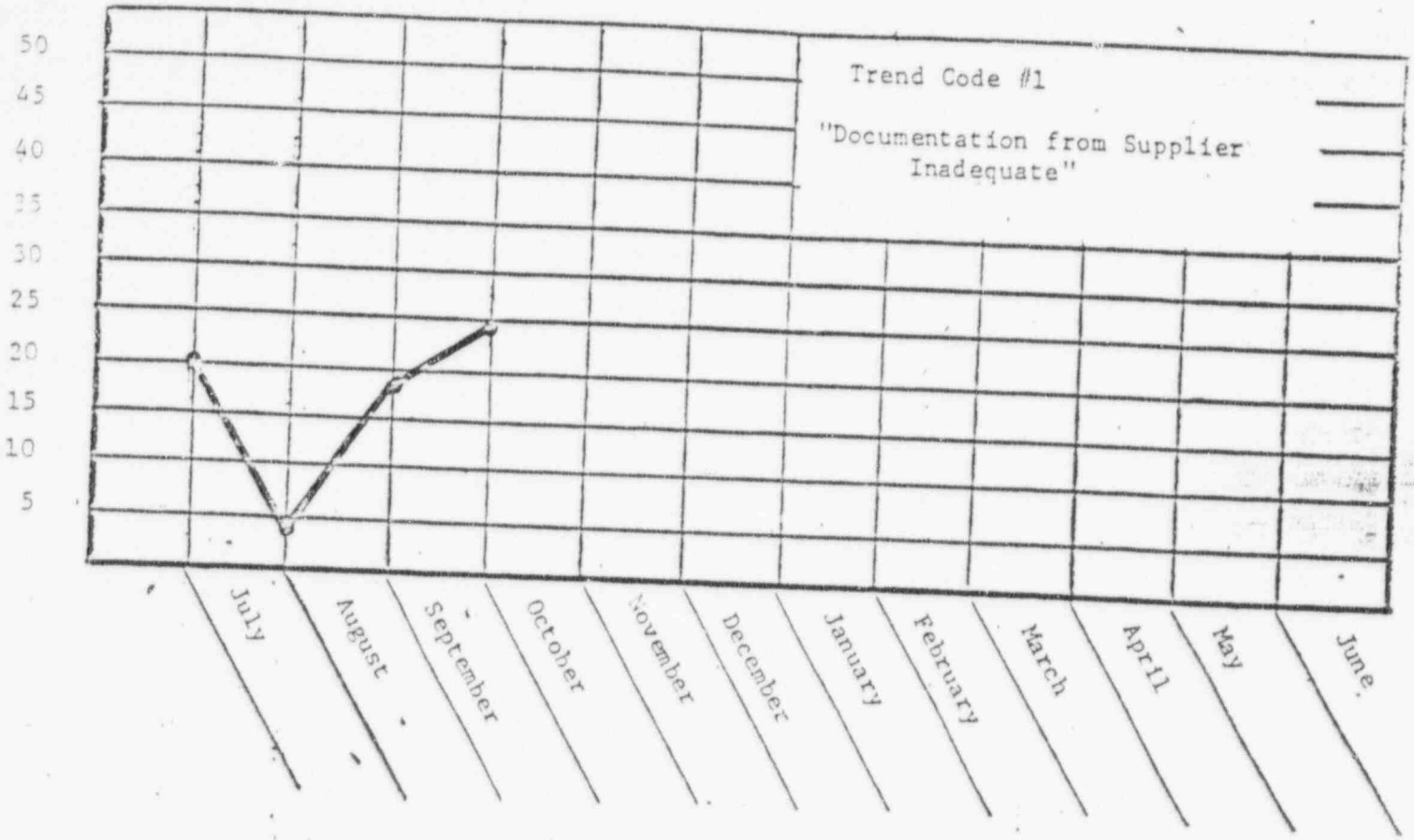
WHITE – Return to sender CANARY – Addressee's file PINK – Sender's file

BFC 20877
G1001649.05

90007131

Performance Area 32

"Supplier Control"



In August, there were four occurrences of inadequate documentation.

In September, there were 18 occurrences of inadequate documentation from varied suppliers.

In October, there were 24 occurrences of inadequate documentation from varied suppliers.

90007132

X

QUALITY ACTION REQUEST

cc: J. Corley
D. Miller
W. Bird

AI: H-68

From: L. A. Dreisbach (1)

To: L. E. Davis (2)

Control Document ref.: FIT 9.900 Rev. 0 (3)

QAR Ident. No.: SD-290 (4)

Action Requested: (5)

The Mechanism for tracking tasks relating to turnover/startup currently used, differs from the mechanism identified in FIT 9.900 Rev. 0.

Amend Field Instruction FIT 9.900 Rev. 0 to reflect the method being used or comply with the procedure as written.

Signature: (6)

Date: 11/27/79 (7)

Reply Requested by: 12/27/79 (8)

Reply: (9)

Signature: (10)

Date: (11)

Action Verified: (12)

Date: (13)

8/2/74

WHITE – Return to sender CANARY – Addressee's file PINK – Sender's file

BPC 20877
01001649.05

90007133

Bechtel Power Corporation
Field Instruction

FIT-9.900

OUTSTANDING WORK ITEMS FOR TURNOVER OR PLANT COMPLETION

This instruction supersedes FIX-9.900, Rev. 0

TO: All Field Engineers and Superintendents

1.0 Purpose

1.1 The purpose of this instruction is to establish a mechanism for gathering, tracking, and dispositioning tasks requiring action prior to, or in conjunction with; Turnover, Startup, or other milestones.

2.0 Scope

2.1 This instruction is applicable to tasks initiated by, but not limited to, the following:

a. Design changes from Engineering.
b. Vendor proposed SDDR work for field completion.
c. Storage and maintenance deficiencies from F-2, F-20 Forms.
d. Applicable NCR and DR work items.
e. System Walkdown inspection.
f. Work Items outstanding during final 30 days prior to Turnover.
g. Corrective Action Requests from CPCo.
h. Documentation problems.

2.2 Open work items may be initiated by Bechtel (Engineers, Superintendents, QC or QA) and/or Consumers Power Company (PMO-Construction, PMO-testing, and QA) personnel.

3.0 Responsibility

3.1 Any personnel aware of open work items, not entered into the system, shall notify the cognizant System Engineer of its existance for evaluation prior to entry into the system.

3.2 The Bechtel Turnover Coordinator (T.O.C.) to review, screen and direct entry into the system, all work items to be accomplished.

3.2.1 The Bechtel T.O.C. shall maintain the file system, and make distribution of lists of open items to responsible personnel on a regular basis or upon request.

3.2.2 The Bechtel T.O.C. shall advise Consumers Power Company when he has elected not to add a Consumers Power Company initiated item into the file system.

3.3 Cognizant area and System Engineers and superintendents shall be aware of tasks within their jurisdiction and shall expedite completion.

3.3.1 System Engineers shall verify completion of work items, and shall notify the T.O.C. of status changes.

3.4 The Bechtel T.O.C. shall obtain feedback on task status, in order to keep the system current.

3.5 The Project Superintendent, Field Superintendent, Project Field Engineer, and T.O.C. shall implement this procedure.

4.0 Procedure

4.1 The T.O.C. shall review all tasks initiated by Para. 2.1 and screen them for authenticity, duplication and applicability with the system engineer.

4.2 The task information shall be entered on a system card (or optional computer) by the T.O.C. as shown on Attachment 9.900-1.

4.3 A complete or partial summary report may be prepared periodically, as the need arises, in order to support Turnover operations.

4.4 Status changes to work items shall be reviewed for applicability, and be entered into the file system by the T.O.C.

4.4.1 Completed tasks may be carried in the system for one week to a month at the option of the T.O.C., however, they shall be carried long enough to appear on a summary report as "closed" status.

Prepared by: _____ 12/11/78 Date

Approved by _____

Consumers Power Co.:

Review by:

PFQCE _____ Date

_____ 1-1-79 Date

LQAE _____ 12-14-78 Date

PFE or Project Superintendent:

_____ 12-19-78 Date

90007135

Category

A - To sustain ongoing work
D - Design change
E - Exception to Turnover Unit
H - For Hot Functional Testing (HFT)
I - For SIT/BLRT
M - Miscellaneous
N - Design, Spec., Document Deviation/Deficiency
O - Operations Improvement
P - For Pre Ops to Support HFT
S - Storage/Maintenance Deficiency
T - For Initial Turnover Unit

Status

O-open
C-closed
P-Pending

1st Action Date

AA-Ann Arbor
CC-CPCo Const.
CT-CPCo Test
CO-CPCo Oper.
CQ-CPCo QA
QC-Bechtel QC
QA-Bechtel QA

AB-Aux. Bldg.
RB-Reactor Bldg.
TB-Turb. Bldg.
EB-Exp. Bldg.
DG-Diesel Bldg.
YD Yard

C-Civil
M-Mechanical
E-Electrical
I-Instrumentation
W-Welding
S-Subcontracts
O-Operations
T-Test

Abbreviated Summary of Description

Sequence # (0001-9999)

SEQ #	SUMMARY	CAT	S	ACTION	RESP	S/U	SEQ
					AB-E		

DESCRIPTION/COMMENTS

DATE INITIATED
ORIGINATOR
NEXT ACTION DATE

Follow-up Action (Subsequent to Above)

See Spec. L-48 and LCOE-3010

Attachment 9.900-1

SAMPLE - ACTUAL FORM IN USE MAY VARY - THE ESSENTIAL CONTROL ELEMENTS OF THE FORM REMAIN THE SAME.

Page 3 of 3
FIT. 9.900
REV 0

90007136

X

QUALITY ACTION REQUEST

AI/710

From: L. A. Dreisbach (1)

To: J. F. Newgen (2)

Control Document ref.: FPD 1.000 Rev 6 (3)

QAR Ident. No.: SD-164 (4)

Action Requested: (5)

Para 6.2 says in part that "stamps currently used by DCC to identify status of drawings....are listed in exhibit H." List does not include the stamp "controlled by Field Engineering" referenced in other field procedures FII-1.130 Rev 0, FIP-1.110 Rev 1, and FIP-1.112 Rev 2.

You are requested to 1)update FPD 1.000 Rev 6 and to 2) provide assurance that similar inconsistencies do not occur in our field procedures.

Signature: T.K. Subramanian (6) Date: 4-16-79 (7) Reply Requested by: 5-16-79 (8)

Reply: (9)

(A) IOM Jack Meilstrup to L. A. Dreisbach dated Nov. 6, 1979 indicated that the status stamp "Controlled By Field Engineering" has been incorporated into FPD 1.000 Rev. 7.

(B) FPD 1.00 Rev. 7 was verified (QA Copy) on Nov. 7, 1979.

Job 7220-QA-Received ____

Log No. ____ File No. ____

Response Reqd ____ Date ____

QA Action Item No. ____

Route	Info	Act	Comment
PQAE			
Resp. Engr.			
Elect (1)			
Elect (2)			
Civil/Mech			
Pipe/Weld			
Trn Ovr			
Trans			
Sect.			

Signature: J. Meilstrup for (A) above. (10) Date: 11-6-79 (11)

Action Verified: QAR is therefore closed T.K. Subramanian T.K. Subramanian for (B) above. Date: 11-5-79 (13)

Sorja file closed QAR

8/2/74

WHITE – Return to sender CANARY – Addressee's file PINK – Sender's file

BPC 20877
G1001649-05

90007137

MEMORANDUM

TO Len Dreisbach LOCATION QA-Midland

FROM Jack Meilstrup DATE 6 Nov 79 19

SUBJECT QAR SD-164 JOB NO. 7220

FILE

The subject QAR indicated that the status stamp "Controlled by Field Engineering" was not included in FPD 1.000.

This stamp was incorporated into FPD 1.000 by Rev. 7 dated 9/11/79.

Jack M Meilstrup
Jack Meilstrup

Job 7220-QA-Received 11/7/79
Log No. _____ File No. _____
Response Rec'd _____ Date _____
QA Action Item No. _____

Route	Info	Act	Comment
PQAE	LAO		
Resp. Cor.			
Elect (1)			
Elect (2)			
Civil/Mch			
Pipe/Weld			
Inst.			
Trn Ovr			
Trend			
Sect.			

cc Tyk Roarke
Dick
Sonja: file closed
QAR file

QUALITY ACTION REQUEST

cc: J. Wiley
W. Bird
D. Miller

AI/796

From: (1) L. A. Dreisbach

To: (2) J. F. Newgen | Control Document ref.: (3) FPD 5.000 Rev. 0 | QAR Ident. No.: (4) SD-196

Action Requested: (5)

Contrary to the requirement of para 8.2 "A revision to field sketch is made when reference documents are revised . . .", (1) FSK-M-1HCB-113-3 Q Rev. 0 (dt 5-7-79) is not revised; Rev. 6 of M-416 Sh 2 (dt 4-16-79) was current while Rev 5 was referenced in the FSK; Sheet 1 of M-421 Rev. 1 referenced in the FSK is not available in Document Control; (2) FSK CC2-79 Sh 3 Rev. 1 (dt 6-24-77) references C633 Rev. 5 while Rev. 8 was issued on 5-18-77; (3) FSK CC2-64 Rev. 1 has no date in the title block. (4) Documents are referenced in FSK-JB2-0002 Q Rev. 0 (eg., J3103 and M417) without revision number.

You are requested to (1) indoctrinate cognizant field engineers requirements of FPD 5.000 Rev. 0 (2) evaluate and correct the discrepancies identified

Signature: (6) R. Sontermann | Date: (7) 5/31/79 | Reply Requested by: (8) 6/30/79

Reply: (9)

Signature: (10) | Date: (11)

Action Verified: (12) | Date: (13)

8/2/74

WHITE — Return to sender CANARY — Addressee's file PINK — Sender's file

BPC 20877
G1001649 05

90007139

QUALITY ACTION
REQUEST

& (3) initiate corrective action to preclude recurrence.

90007140

Bechtel Power Corporation

Interoffice Memorandum

To L. A. Dreisbach

File No.

Subject Job 7220 Midland Project
Action Item 796 Closure
0-2446

Date July 13, 1979

From J. F. Newgen

Of Construction

Copies to J. Gilmartin
D. Short
V. Graden
P. Goguen
J. Hedges

At Midland, MI Ext.

Reference: Action Item 796, QAR-SD-196, Field Sketches.

This memo is in response to the reference listed above. FPD 5.000, Revision 0, Paragraph 8.2 has been interpreted out of context. The QAR findings ask to have the drawings referenced in the notes of FSK's prefaced with the latest revision.

The intent of paragraph 8.2 is to have FSK's revised only when the drawings from which they were derived are changed to the extent that design shown on FSK's is no longer correct.

Finding (1) is therefore being changed to remove the generic reference revision number. Finding (4) is correct as found, since this is the general practice on all FSK's just as it is on project drawings. Finding (2) has been retired. Finding (3) will be either retired or corrected by addition of a date.

We hope this is a satisfactory answer.

J. F. Newgen

JFN/LFS/mkm

Job Response Report 7/20/79
Log No. 79-781 File No.
Response Reqd. Date
QA Action Item No. 796
Roots | Lab | A-E | Cadment
PQAE | LAD
Resp. Cor. | LFS
Elect (1)
Elect (2)
Civil/Ech
Pipe/Weld
I&C
Tm Ovr
Trend
Sect. | BMK

90007141

3024, REV 1/78

X

QUALITY ACTION REQUEST

cc: W. Bird
D. Miller
J. Corley

JUN 7 1979

AI/810

From: Alex Ozeroff (1)		
To: R. L. Castleberry (2)	Control Document ref.: E-42 and C-111 (3)	QAR Ident. No.: SD-203 (4)

Action Requested: (5)

It has been noted that a number of installed non-Q containment supports do not conform with the intended designs given in E-42. Q.C. inspects only the welds, per se, of these components. Request that engineering evaluate the impact of these deviating configurations and locations on the liner plate. How are these installations being/ (to be) controlled with respect to compromise of the liner plate structure. Also there is a multitude of temporary supports and other unidentified projections attached to the liner plate for which there appears to be no control or documentation.

Signature: Alex Ozeroff (6)	Date: 6/5/79 (7)	Reply Requested by: 7/5/79 (8)

Reply: (9)

Engineering response per attached IOM BEBC-3364 dated Oct. 24, 1979

Curtis to Davis provides for the following:

1. Electrical sketches of non-Q as-built attachments indicate highly unacceptable deviation from liner stiffner angles.
2. All Q and non-Q attachments to be incorporated in field sketches with design loads included at the liner and submit to Project Engineering every 3 months.
3. Tolerances from stiffener angles as follows:

(Continued on Page 2)

Signature: IOM BEBC-3364 signed by L. H. Curtis (10)	Date: 10/24/79 (11)
Action Verified: R. E. Sewell (12)	Date: 11/08/79 (13)

8/2/74

WHITE — Return to sender CANARY — Addressee's file PINK — Sender's file

BEC 2017
G1001649.05

90007142

QUALITY ACTION
REQUEST

Reply: (Cont'd)

a. unistruct P-1000; ± 1 inch.
b. C 3x6; ± 1/2 inch.
c. Other size unistruct; ± 1/2 inch.

4. This tolerance shall be closely followed for all installed attachments.

5. All attachments which do not meet this tolerance shall be removed and re-designed.

6. Future attachments shall meet tolerances identified in item 3.

7. Drawing C-618 will be revised to incorporate these tolerances.

8. Field is to coordinate its effort with the Resident Engineer.

Job 7220-QA Received 11/9/79
Log No. ____ File No. ____
Response Req'd ____ Date ____
QA Action Item No. 810

Route	Initial	Alt.	Comments
PDAE			
Resp. Cor.	X		
Elect (1)		X	
Elect (2)			
Civil/Mech			
Pipe/Weld			
Inst.			
Trn Ovr			
Trend			
Stat.		X	

Route 1 Log 1 Log 2

90007143

Bechtel Associates Professional Corporation

Inter-office Memorandum

BEBC- 3364

To L.E. Davis

Date October 24, 1979

Subject Midland Plant Units 1 & 2
Job 7220
Response QAR SD-203
(Attachments to Containment
Liner Plate)
File: 0274, C-50

From L.H. Curtis

Of Engineering

At Ann Arbor

Copies to

R. Baltazar
L. Curtis
P. Goguen
T. Johnson
W. Moring
A. Ozeroff
R. Schulman
R. Yuan
Com Log

This is a complete response to QAR SD-203, and advises construction of the engineering concern for Q and non-Q attachments to the containment liner. Electrical sketches of non-Q as-built attachments indicate a highly unacceptable deviation from liner stiffener angles. In order to improve control and documentation, engineering recommends that all Q and non-Q attachments be incorporated in field sketches with design loads included at the liner and submitted to project engineering every 3 months. Engineering has evaluated the liner plate attachment for tolerance. This tolerance of location from embedded stiffener angle is as follows unistrut (P1,000), ±1 inch; C3x6, ±1/2 inch; and other size unistrut, ±1/2 inch. This tolerance shall be closely followed for all installed attachments. All attachments which do not meet this tolerance shall be removed and redesigned. Future attachments shall meet the specification tolerance (±1 inch for unistrut and ±1/2 inch for all other attachments). Drawing C-618 will be revised to incorporate these tolerances. It is suggested that engineering be kept abreast of this work and that the field coordinate its effort with the resident engineer, R. Schulman.

for W.W. Lothwell
L.H. Curtis

WHH/ht
10/11/10

90007144

QUALITY ACTION REQUEST

cc: J. Corley
D. Miller
W. Bird

AI: H-6

From: R. C. Hollar (1)		
To: W. L. Barclay (2)	Control Document ref.: N/A (3)	QAR Ident. No.: SD-249 (4)

Action Requested: (5)

NCR 2312 identifies six (6) terminations that were performed with a crimping tool found to be faulty. Subsequent investigation by CPCo revealed seven (7) additional terminations that was done by the same crimping tool which had not been identified by Quality Control.

Recommended Action:

1. Investigate concern and determine root cause.
2. Provide means to proclude repetition.
3. Re-evaluate all cases where a crimping tool was found faulty and determine if any related terminations were overlooked.

(Continued on the following page 2 of 2)

Signature: R. C. Hollar (6)	Date: August 1, 1979 (7)	Reply Requested by: August 15, 1979 (8)

Reply: (9)

See IOM from WLBarclay to LADreisbach, dated 9/12/79 QCFM-6589/AI-647.

Checked QTS sort by tool number dated 8/30/79 for "Q" terminations completed for the two month period prior to the 8/30/79 print out date. This implies that the indeterminate crimps were recrimped with a conforming tool.

No deficiencies were noted.

Signature: See IOM QCFM-6589/AI-647 ~~Attached~~ (10)	Date: 9/12/79 (11)
Action Verified: K. Yee (12)	Date: By 10/5/79 (13)

8/2/74

WHITE – Return to sender CANARY – Addressee's file PINK – Sender's file

BPC-20877
G1001649-05

90007145

Quality Action
Request

Recommended Action (continued)

4. Document and control all nonconforming conditions in accordance with SF/PSP G-3.2.

90007146

Ident: QAR SD-249
AI-H6

Project Quality Assurance
Midland Units 1 & 2 - 7220

Verification of Corrective Action

Method:

✓ 1. Verify action of response as implemented.
✓ 2. Review of documentation or attachments to resolve finding.
___ 3. Requirement removed or finding withdrawn.
___ 4. Other: _____

Items Checked: QTS PRINT OUT FOR 8/30/79 FOR CRIMPING TOOLS AND TERMINATIONS DONE BY THE CRIMPING TOOLS. CHECKED THE QTS PRINTOUT FOR CRIMPING TOOL BPC-2527. THE PRINTOUT SHOWS NO "Q" TERMINATIONS WERE DONE BY THE REFERENCED TOOL SINCE 4/79.
ALSO CHECKED OTHER TOOLS IN THE 8/30/79 QTS PRINTOUT FOR "Q" TERMINATIONS DONE WITHIN THE LAST 2 MONTHS PRIOR TO THE 8/30/79 PRINTOUT. NO OTHER DEFICIENT TERMINATIONS WERE NOTED FOR THIS PERIOD.

Closeout Documentation (list or attach)

[X] Verified [ ] Not Verified (explain)

① IOM FROM W.L. BARCLAY TO L.A. DREISBACH DATED SEPT. 12, 1979. QCFM-6589/AI-647.

R. Yee
QA

10/31/79
DATE

90007147

QCFM-6589/AI-647

Bechtel Power Corporation

Inter-office Memorandum

Job 7220-QA-Received 9/12/79
Log No. 997 File No.
Response Req'd NO Date
QA Action Item No. H6

Route	Info	Act	Comment
PQAE	NO		
Resp. Cor.		X	
Elect (1)			
Elect (2)			
Civ/Mch			
Pipe/Weld			
Inst.			
Tn Ovr			
Found.			
Const.		X	

Dick & Arthur

To L. A. Dreisbach

Date September 12, 1979

Subject Midland Project, Units 1&2
Bechtel NCR 2312

From W. L. Barclay

Of Quality Control

Copies to J. F. Newgen
R. A. Simanek

At Midland, Michigan
Job No. 07220

References: a) QAR SD-249, dated 8/1/79
b) QA Action Item H6, dated 8/1/79

This is considered Quality Control's complete response to reference a) and b) above.

The determination of what terminations were made by a specific tool is made by a review of the QTS sort by tool number. The print-out used for tool BPC-2527, and subsequently for NCR 2312, was dated 6/20/79. The QTS print-out used for the CPCo Audit was dated 7/6/79. During the intervening two weeks, additional terminations made during the calibration interval in question, were input to the QTS database. These 7 terminations are covered by NCR 2417.

In order to provide assurance that all terminations done by an out of calibration tool are picked up, Electrical Quality Control will check the latest QTS approximately 60 days after the initial check to identify additional terminations. The first recheck has been made using an 8/30/79 QTS, no additional terminations were identified for any of the crimp tools previously found to be out of calibration.

If you have any further questions concerning the above, please contact this office.

W. L. Barclay
W. L. BARCLAY
PROJECT FIELD QUALITY CONTROL
ENGINEER

WLB/SMC/DCT/jmk

Response Required: NO

90007148

QUALITY ACTION REQUEST

cc: J. Corley
D. Miller
W. Bird

AI: H18

From: R. C. Hollar (1)		
To: L. H. Curtis (2)	Control Document ref.: NCR 2492 (3)	QAR Ident. No.: SD-262 (4)

Action Requested: (5)

Inconjunction with Castleberry IOM to Group Supervisors dated April 12, 1979. Subject: Clarification to Drawings and Specifications (attached) the following requests are made:

1) Please review attached TWX 5283, dated 8/7/79 - Subject: Qualification of Compaction Equipment and determine if this information should be included as formal change to Specification C-211.

(Continued on the following attached page)

Signature: R. E. Sevo (6)	Date: 9/4/79 (7)	Reply Requested by: 9/21/79 (8)

Reply: (9)

Engineering response per attached BEBC-3332 dated 10/15/79, Curtis to Dreisbach provides the following:

1. Approved listings of compaction equipment do not clarify, modify, or change any specification requirements and incorporation into specification is not required.
2. All equipment used in compacting backfill for permanent installations are to be qualified per specification 7220-C-211.
3. NCR 2492 will be evaluated by Project Engineering.

Signature: IOM BEBC-3332 signed by M. O. Rothwell (10)	Date: 10/15/79 (11)
Action Verified: R. E. Sevo (12)	Date: 11/08/79 (13)

8/2/74

WHITE – Return to sender CANARY – Addressee's file PINK – Sender's file

BPC 20877
C1001649-05

90007149

2) Attached NCR Part 1 Field Disposition, states that hand held compaction equipment have not been formally qualified in accordance with Specification C-211 paragraph 8.5.1 requirements. Please evaluate and determine if hand held compaction equipment should be qualified and included in referenced specifications.

QA-Received 11/9/79			
Log No. ____ File No. ____			
Response Rec'd ____ Date ____			
QA Action Item No. H-18			
Route	Info.	Act.	Comments
PQAE			
Resp. Cor.	X		
Elect (1)		X	
Elect (2)			
Civ/Mch			
Pipe/Weld			
Inst.			
Tsn Ovr			
Trend		X	
Sect.		X	Route Thru File

90007150

#2 / #10

Bechtel Associates Professional Corporation

Inter-office Memorandum

BEBC- 3332

To L. Deisbach

Date October 15, 1979

Subject Midland Plant Units 1 & 2
Job 7220
QAR SD-262
File: 0460, C-211-PR

From L.H. Curtis

Of Engineering

At Ann Arbor

Copies to

R. Baltazar
L. Basinski
L.H. Curtis
D. Reeves
J. Wanzech
Com Log

Reference: 1) BEBC-3162, 8/7/79
2) QAR SD-262
3) BEBC-3301, 9/28/79

This is a complete response to Reference 2 concerning the use of compaction equipment, and a specification clarification on the same.

Reference 1 does not clarify, modify, or change any of the specification requirements, and does not need to be incorporated in the applicable specification.

As indicated in Section 8.5 of Specification 7220-C-211, all equipment used in compacting backfill for permanent installations are to be qualified. Note that since the issuance of QAR SD-262, the "pogo stick" has been qualified for applications as indicated in Reference 3, and NCR 2492 will be evaluated by project engineering.

JGH/ht
10/8/4

Job 7220-QA Received 10 17 79
Log No. 1142 File No. ____
Response Req'd NO Date ____
QA Action Item No. H-18

Route	Info	Act	Comment
PQAE	NO		Copy to Lowe File with QAR SD-262 [illegible]
Resp. Cor.			
Elect (1)		[illegible]	
Elect (2)			
[illegible]		✓	
[illegible]			
[illegible]			
[illegible]			
[illegible]			

for L.H. Curtis

90007151

QUALITY ACTION
REQUEST

cc: J. Corley
D. Miller
W. Bird

AI: H-26

From: R. C. Hollar (1)

To: W. L. Barclay (2) | Control Document ref.: SF/PSP G-3.2 Rev. 4 (3) | QAR Ident. No.: SD-267 (4)

Action Requested: (5)

A review of a printout listing "Unqualified equipment-shipped" issued 8/15/79 revealed equipment on nineteen (19) Purchase Orders being shipped to the site without having an approved Qualification Test Report. (See attached listing).

RECOMMENDED ACTION:

1. Determine if equipment has been received on site and issue a nonconformance report per SF/PSP G-3.2.

2. Provide means to assure that equipment identified on the following list of Purchase Orders is identified as nonconforming upon receipt.

(Continued on Page 2)

Signature: R. C. Hollar (6) | Date: 9/25/79 (7) | Reply Requested by: 10/10/79 (8)

Reply: (9)

Qualification Test Status Report Rev. 9 shows all applicable qualification tests completed satisfactorily for P.O.'s M-53, M-20, M-123A, M-129A, M-180 and M-336, therefore no NCR's are necessary.

NCR No. 1855 (previously written) identifies the indeterminate status of the qualification tests for material on P.O. E-60.

The following NCR's identify the indeterminate status of the qualification tests for the "Q" material received on the P.O.'s as listed, NCR 2669 C-18, NCR 2668 C-24,

(CONTINUED ON BOTTOM OF PAGE 2)

Signature: W. L. Barclay (OCFM 6943) (10) | Date: 10/31/79 (11)

Action Verified: R. C. Hollar (12) | Date: 11/19/79 (13)

8/2/74

WHITE – Return to sender CANARY – Addressee's file PINK – Sender's file

BPC 20877
G1001649.05

90007152

Action Requested: (Cont'd)

The following is a list of Purchase Orders in which the status of the applicable Qualification Test Report is indeterminate.

E-53	M-55 (2662)	E-60 (1855)*	M-129B (2660)
C-18 (2669)	C-24 (2668)	J-245 (2665)	M-140 (2659)
M-90 (2661)	C-44 (2667)	M-20	M-151A (2658)
M-18 (2663)	C-46 (2666C)	M-123A	M-180
	J-255B (2664)	M-129A	M-336

* previously written

REPLY: (Cont'd)

NCR 2667 C-44, NCR 2666 C-46, NCR 2665 J-245, NCR 2664 J-255B, NCR 2663 M-18, NCR 2662 M-55, NCR 2661 M-90, NCR 2660 M-129B, NCR 2659 M-140, and NCR 2658 M-151A.

90007153

Log No. 1195	File No.		
Response Req'd NO	Date		
QA Action Item No.			
Route	Info	Act	Comment
SAE			
Resp. Cor.		X	
Elect (1)			
Elect (2)			
Civ/Mch			
Pipe/Weld			
Inst.			
Trn Ovr			
Trend			
5204			

QCFM-6943/AI-701

Bechtel Power Corporation

Inter-office Memorandum

To L. A. Dreisbach

Date October 31, 1979

Subject Midland Project, Units 1&2
QAR No SD-267

From W. L. Barclay

Of Quality Control

Copies to L. E. Davis
R. A. Simanek

At Midland, Michigan
Job No. 07220

References: a) QAR No. SD-267, dated 9/25/79
b) QA Action Item No. dated 9/25/79

This is considered Quality Control's complete response to reference a) and b) above.

Qualification Test Status Report Rev. 9 shows all applicable qualification tests completed satisfactorily for P.O.'s M-53, M-20, M-123A, M-129A, M-180 and M-336, therefore no NCR's are necessary.

NCR No. 1855 (previously written) identifies the indeterminate status of the qualification tests for material on P.O. E-60.

The following NCR's identify the indeterminate status of the qualification tests for the "Q" material received on the P.O.'s as listed, NCR 2669 C-18, NCR 2668 C-24, NCR 2667 C-44, NCR 2666C-46, NCR 2665 J-245, NCR 2664 J-255B, NCR 2663 M-18, NCR 2662 M-55, NCR 2661 M-90, NCR 2660 M-129B, NCR 2659 M-140 and NCR 2658 M-151A.

If you have any further questions concerning the above, please contact this office.

W. L. Barclay
W. L. BARCLAY
PROJECT FIELD QUALITY CONTROL
ENGINEER

WLB/SMC/DAD/jmk

Response Required: NO

90007154

X

QUALITY ACTION REQUEST

cc: J. Corley
D. Miller
W. Bird

AI: H-36

From: Raymond Yee (1)

To: J. Neugen (2) | Control Document ref.: FIE - 4.100 Rev. 1 (3) | QAR Ident. No.: SD-272 (4)

Action Requested: (5)

Paragraph 4.3 states that a tag shall be attached to the reel containing the cable code, linear feet of cable, type of cable, and reel number.

During monitoring activities, a number of reels were found with vendor metal tags attached (but no Bechtel tags) which contained cable not consistent with the information on the tag. For example, a reel had 3/C #350 MCM cable but the vendor tag indicated 3/C #6, and reel No. 556.

Mr. Ross Whitaker pointed out that these reels contained scrap cable.

Recommended Action

Those reels containing scrap cable should be segregated and the area designated as a scrap cable area.

Signature: R. Yee (6) | Date: 10/1/79 (7) | Reply Requested by: 10/15/79 (8)

Reply: (9)

Subject cable has been roped off. A sign to identify the area is also being made.

Confirmed that scrap cables are flagged off, in Poseyville storage yard

Signature: P. W. Solomon (10) | Date: 10/11/79 (11)

Action Verified: R. Yee (12) | Date: 11-13-79 (13)

8-2-74

WHITE – Return to sender CANARY – Addressee's file PINK – Sender's file

BPC 20877
Q1001649.05

90007155

Ident: QAR SD-272

Project Quality Assurance
Midland Units 1 & 2 - 7220

Verification of Corrective Action

Method:

✓ 1. Verify action of response as implemented.
____ 2. Review of documentation or attachments to resolve finding.
____ 3. Requirement removed or finding withdrawn.
____ 4. Other:

Items Checked:

CHECKED THAT SCRAP CABLES HAVE BEEN FLAGGED. REELS ARE ROPED AND FLAGGED "TEMPORARY RECEIVING".

Closeout Documentation (list or attach)

☑ Verified ☐ Not Verified (explain)

R. Yee
QAE

11-13-79
DATE

90007156

X

QUALITY ASSURANCE PROGRAM
MANAGEMENT CORRECTIVE ACTION REPORT
MCAR-1

REPORT NO. 35

JOB NO. 7220 Q NO. 2.20 DATE November 13, 1979

I *DESCRIPTION (Including references): Epoxy decontaminative surfacer applied to Unit 2 containment, northwest primary shield wall and incore tunnel exterior faces from elevation 593'-6" to about 603'-0" exhibits a loss of adhesion between the Nu-Klad 117 (N) surfacer and Amercate 90 (N) top coat.

This surfacer was applied by subcontractor J. L. Manta in accordance with requirements of subcontract No. A-15 and specification 7220-A-15(Q) utilizing system no. 9 thin coat application.

This condition was first noted by CPCo resulting in issuance of CPCo NCR M01-4-9-132 (attached). (Continued on page 2)

*RECOMMENDED ACTION (Optional)

I. Determine Root Cause:
   A. Quantify by mapping and testing coated areas to determine extent of physical problem.
   B. Review design specification, subcontractor procedures and Quality records for acceptability of techniques, procedures, equipment, and materials used.
   C. Perform analysis of materials used for compliance with design and quality requirements.

II. Determine reportability under 10CFR50.55(e) and advise QA no later than Nov. 30, 1979. (Continued on page 2)

REFERRED TO ☒ ENGINEERING ☐ CONSTRUCTION ☐ QA MANAGEMENT ☐ _____

☐ PROCUREMENT

ISSUED BY VA Dreisbach 11-13-79
Project QA Engineer Date

II REPORTABLE DEFICIENCY	Potentially Reportable	NOTIFIED CLIENT 11/13/79 Date
☐ NO	☐ YES	Project Manager 11/13/79 Date

III CAUSE

MCAR 35 Stat Fdl

CORRECTIVE ACTION TAKEN

AUTHORIZED BY _____ Date

STANDARD DISTRIBUTION
DIVISION QA MANAGER
MANAGER OF QA - TPO
GPD - QA MANAGER
LAPD QA MANAGER
AAO QA MANAGER
PROJECT MANAGER
CLIENT
AAO PROJECT OPERATIONS MANAGER
AAO PROCUREMENT MANAGER
AAO MGR OF ENGINEERING
AAO MGR OF CONSTRUCTION

ADDITIONAL DISTRIBUTION - AS APPROPRIATE
ENGINEERING MANAGER
PROJECT ENGINEER
AAO PROCUREMENT SUPPLIER QUALITY MGR
CONSTRUCTION MANAGER
PROJ SUPT PROJ CONSTR MANAGER
CHIEF CONSTR QC ENGINEER
PF QCE
DIVISION PROCUREMENT MGR
PROJ PROCUREMENT MGR
DIV SUPPLIER QUALITY MGR

FORMAL REPORT TO CLIENT _____
(If Section II Applies) Date

CORRECTIVE ACTION IMPLEMENTED
90007157

VERIFIED BY _____
Project QA Engineer Date

*Describe in space provided and attach reference document

DESCRIPTION: (Cont'd)

Approximately 600 sq. ft. of surfacer is currently in question on primary shield and incore tunnel with 10-12 sq. ft. already removed during current investigation.

RECOMMENDED ACTION: (Cont'd)

III. Based upon the results of I, provide recommended fix and accomplish repair of defective areas.

IV. Take appropriate steps to preclude recurrence.

V. Provide report to QA by November 30, 1979 (interim or final).

Start Up System: Indeterminate

Consumers Power Company

NONCONFORMANCE REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

6. PROJECT NAME: Midland Nuclear Plant	7. PROCUREMENT PART NO: NA	8. PROCUREMENT PART NAME: Epoxy Coatings	1. NCR NO: N-MDL-79-0-132
9. FIELD NCR #: NA	10. CSC. CONTRACTOR NO: J L Manta Co	11. AFFECTED AREA: Reactor Building #2	2. DATE: 11-8-79
			3. DATE OF DEV: NA
			4. PCRS NO: 16.7

12. AS BUILT NONCONFORMANCE CONDITION TERMS AS DEVIATION CONDITION WITH REFS:

Specification A-15, Rev 7, Epoxy or Phenolic Decontaminative Surfacer, 10.5 states in part, "Deficiencies and defects shall be removed and replaced or corrected to Contractor's satisfaction..."

J L Manta QA Manual 10.1.0 states, "All coating exceptions will be recorded on Form JLM 1001 and the area of the defective coating will be tagged with JLM 1-3 by the Field Quality Assurance/ Quality Control Inspector".

(Contd on Page 3)

5. DISTRIBUTION

ACTION COPY: LADreisbach

INFO COPY:

WLBarclay	BWMarguglio
WRBird	JMilandin
RBCherba	DBMiller
TCCooke(2)	WGMoring
JLCorley	JARutgers
LEDavis	RASimanek
RHermeston	DATaggart
SHHowell	WCBates
DRJohnson	ALDelange
GSKeeley	

13. CA RECOMMENDED FOR PART CA:

1. Determine root cause or failure not to be less than:
   a. Reinspect all other areas where same batch of material was used.

(Contd on Page 3)

DESIGN/PROJECT ENG. DISPOSITION REQUIRED [ ] NOT REQUIRED [X]

14. FIELD CAGE APPLIED: YES [ ] NO [X] REPORT, LOCATION & DATE OF FIELD CAGE APPLIED: NA

15. IS PROCESS CA REQUIRED: YES [X] NO [ ] IF NO, WHY NOT ACCEPTABLE ITEM:

16. DOES NC AFFECT A-LIST ITEM: YES [X] NO [ ]

17. IS NC REPORTABLE PER 50.55(e): YES [ ] NO [ ]

18. IS NC REPORTABLE PER PART 21: YES [ ] NO [X]

19. IF YES, DATE & TIME OF REPORT TO NRC:

20. IF YES, WHO MADE REPORT TO NRC:

21. IF YES, NAME OF NRC OFFICIAL TO WHOM REPORTED:

22. NCR CLOSED BY: [signature]

23. VERIFIED REPORT REVIEWED BY: 11-26-79

TO INITIATE CA COMPLETION DATE

24. SUPERVISOR'S SIGNATURE/DATE: RG Wollney 11/8/79

25. PART CA DISPOSITION, INITIATION & COMPLETION DATE:

26. DESIGN/PROJECT ENG. ACTN. REQ.: NA	27. PMO ENG. ACTN. REQ.: NA	28. PROCUREMENT ENG. ACTN. REQ.: NA	29. ENG. IF ENG. ACTN. REQ. (CA): NA
30. FAB/CONST. ENG. ACTN. REQ. REQ.: NA	31. ENG. IF CONT PROM ACTIV. REQUIRED: NA	32. PMO MAKES NCR - FAB ENG. ACTN. REQ.: NA	33. CA ACTN. ENG. IF REQUIRED REQ.:

34. NCR/CA IF PART CA COMPLETED:

90007159

35. ENG. IF ENG. REQ. FOR PART CA DISPOSITION COMPLETION: NA	36. ENG. VERIFIED PART CA & ENG. CA REMOVAL DATE: NA	37. PMO CLOSED NCR DATE: (PART & PROCESS CA COMPLETE):

Consumers Power Company

NONCONFORMANCE REPORT
PROCESS CORRECTIVE ACTION

PROJECTS, ENGINEERING AND CONSTRUCTION
QUALITY ASSURANCE DEPARTMENT

M-01-4-9

10. CA ASSIGNMENT OF ROOT CAUSE(S):

Lack of requirement/procedure for the inspection/test and defined parameters for adhesion of coatings.

13. ACTUAL ROOT CAUSE(S), IF DIFFERENT FROM ABOVE (TO BE COMPLETED BY CRO, RESPONSIBLE FOR PROCESS CA):

40. PROCESS CA ROUTED FROM:

DESIGN [X] FABRICATION [ ] CONSTRUCTION [X] PROCUREMENT [ ] INSPECTION [X]

OTHER

41. CA RECOMMENDATION FOR PROCESS CA:

1. Pending results of root cause or deficiency, recommend corrective action to preclude repetition.
2. Project Engineering: Determine need for inspection of other type of defectives not presently requiring specific inspection. Recommend methods and/or acceptance parameters/standards.

42. PROCESS CA TO BE TAKEN BY CRO(S) CONSISTED OF BLOCK 41 & DATE OF COMPLETION:

43. METHOD OF PROCESS CA VERIFICATION:

90007160

44. YES, IF YES, RESPONSIBLE FOR PROCESS CA VERIFICATION COMPLETED:

45. PROCESS CA VERIFICATION COMPLETED DATE:

NCR SERIAL NO: M-01-4-9-132
DATE: 11-8-79
DATE OF REV: NA
FILE NO: 16.7

12. "AS IS" NONCONFORMING CONDITION VERSUS "AS REQUIRED" CONDITION WITH REFS:

(Contd from Page 1)

Contrary to the above, on the northwest exterior face of the primary shield wall from elevation 593'-6" to about 603'-0", the coating exhibited loss of adhesion between surfacer and the topcoat. The area was neither tagged as defective nor identified as an exception prior to CPCo identification.

13. QA RECOMMENDATION FOR PART CA:

(Contd from Page 1)

1. b. Determine if generic only to same material or if a deficiency in application. Submit determination to Contractor for concurrence.

   c. Provide a program, for approval, to sample all previously completed work to assure deficiency is not generic to all epoxy concrete coatings.

   d. Reinspect all previously completed work in accordance with approved plan and identify findings.

2. Rework/repair all areas identified as defective as a result of this nonconformance.

3. Determine reportability.

90007161

QUALITY ASSURANCE PROGRAM
MANAGEMENT CORRECTIVE ACTION REPORT
MCAR-1

X

REPORT NO. 36

JOB NO 7220 Q NO 4.104 and 4.114 DATE November 30, 1979

I *DESCRIPTION (Including references):

Four shop welds (3 in 10 inch Sch 160 and 1 in 12 inch Sch 140) in stainless steel pipe spools from ITT Grinnell installed in Decay Heat Removal and Core Flood Systems showed unacceptable linear indications. These indications were visually observed during weld grinding for In-Service Inspection preparation and were confirmed by Bechtel by progressive grinding and liquid penetrant inspection of the defect area. The depth of the indications is approximately 0.125 inch determined by progressive grinding. PT indications were observed around the circumference. Investigative UT examination confirmed presence of surface and subsurface indications. The original ITT Grinnell Radiographic interpretation and Bechtel investigative RT did not identify

(Continued on page 2)

*RECOMMENDED ACTION (Optional)

Project Engineering evaluate the reported condition and:

A. Determine the root cause of the problem.

B. Determine the scope of the problem and direct actions as necessary to assure that all affected ITT Grinnell supplied pipe spools/welds are identified and evaluated.

C. Advise Field Construction of actions necessary to correct the problem including confirmation that any necessary repair is to be done per ASME Sec. III requirements.

D. Determine reportability under 10 CFR 50.55(e) and advise QA no later than 12/28/79.

(Continued on page 2.)

REFERRED TO ☒ ENGINEERING ☐ CONSTRUCTION ☐ QA MANAGEMENT ☐ _____

☒ PROCUREMENT

ISSUED BY K A Dreisbach 11-30-79
Project QA Engineer Date

II REPORTABLE DEFICIENCY	Pending Eng. Evaluation	NOTIFIED CLIENT 11/30/79 Date
☐ NO	☐ YES	Project Manager 11/30/79 Date

III CAUSE

CORRECTIVE ACTION TAKEN

AUTHORIZED BY _____
Date

STANDARD DISTRIBUTION
DIVISION QA MANAGER
MANAGER OF QA - TPO
GPD - QA MANAGER
LAPD QA MANAGER
AAO QA MANAGER
PROJECT MANAGER
CLIENT
AAO PROJECT OPERATIONS MANAGER
AAO PROCUREMENT MANAGER
AAO MGR OF ENGINEERING
AAO MGR OF CONSTRUCTION

ADDITIONAL DISTRIBUTION - AS APPROPRIATE
ENGINEERING MANAGER
PROJECT ENGINEER
AAO PROCUREMENT SUPPLIER QUALITY MGR
CONSTRUCTION MANAGER
PROJ SUPT-PROJ CONSTR MANAGER
CHIEF CONSTR QC ENGINEER
PF OCE
DIVISION PROCUREMENT MGR
PROJ PROCUREMENT MGR
DIV SUPPLIER QUALITY MGR

FORMAL REPORT TO CLIENT _____
(If Section II Applies) Date

CORRECTIVE ACTION IMPLEMENTED

90007162

VERIFIED BY _____
Project QA Engineer Date

*Describe in space provided and attach reference document

Description

indications. The extent of linear indications observed renders the quality of shop welds indeterminate. Attached table provides additional data.

Recommended Action

Procurement:

A. Formally notify ITT Grinnell of this condition so that consideration of a part 21 report is given by ITT Grinnell.

MCAR 36
November 30, 1979
Attachment 1

MCAR 36

DETAILS OF WELDS AND INDICATIONS

System: Decay Heat Removal and Core Flooding

Weld No.	Welder	Date	Process GTAW	AGTAW	SAW	PT INDICATIONS	UT INDICATIONS
1. Spool: 1CCB-26-S610-1-2: 10 inch Sch 160.							
A	C111	4/6/77	USED		USED	YES	YES
C	C111	12/28/76	USED		USED	YES	NO
F	C111	12/28/78	USED	USED	USED	YES	YES
2. Spool: 2CCA-18-S-611-2-2: 12 inch Sch 140							
A	C111	2/24/78	USED		USED	YES	NOT DONE

Spool 1CCB:

Note: 1. PT indications are over entire circumference and continuous in welds A and F. Weld C showed intermittant indications.

2. Weld C showed no recordable UT indications. Weld A showed numerous UT indications and Weld F showed 3 indications.

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

1. JOB NUMBER	2. UNIT NUMBER	3. DATE	4. ITEM NAME	5. ITEM NUMBER
CL-238	1	10-31-79	RC Pump Casing	1P51-A

6. VENDOR MANUFACTURER	7. DISCOVERED DURING	8. REJECT TAG NUMBER	9. PROCEDURE NUMBER
Byron Jackson	☐ RECEIVING ☐ TEST ☒ CONST.	337	FCP 128

10. SPECIFICATION NUMBER	11. DRAWING NUMBER	12. PRIOR REPORT OF NONCONFORMITY#
N/A	1F7623 Rev. K	N/A.

13. DESCRIPTION OF NONCONFORMITY

Low areas (.010" max) and high areas (.004" max) are present along the inner gasket seating surface area. See attached sketch.

14. REPORTED BY	15. VERIFIED BY	16. CORRECTIVE ACTION REQUIRED
R Thorne for J. S. Schwartz — 10-31-79 (NAME / DATE)	R W Thorne — 10-31-79 (NAME / DATE)	☐ YES ☒ NO

17. REPORTABLE DEFICIENCY IN ACCORDANCE WITH 10 CFR 50.55 (e)

☐ YES ☒ NO. — H. H. Lin (FIELD PROJECT ENGINEER) — 10-31-79 (DATE)

18. RECOMMENDED DISPOSITION: ☐ N/A ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

19. TECHNICAL JUSTIFICATION/OR RECOMMENDED DISPOSITION INSTRUCTIONS

Vendor to supply disposition

H. H. Lin (FIELD PROJECT ENGINEER) — 10-31-79 (DATE)

20. ACTUAL DISPOSITION: ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

21. DISPOSITION INSTRUCTIONS

FIELD PROJECT ENGINEER — DATE

22. APPROVALS

B&W FQC — SIGNATURE — DATE — OTHER — SIGNATURE — DATE

OWNER/AGENT — SIGNATURE — DATE — OTHER — SIGNATURE — DATE

23. ANI REVIEW — SIGNATURE — DATE

24. DISPOSITION COMPLETED — NAME — DATE

25. DISPOSITION VERIFICATION — NAME — DATE — ☐ ACCEPTABLE ☐ UNACCEPTABLE — REPORT OF NONCONFORMITY #

26. CORRECTIVE ACTION

90007165

FIELD PROJECT MANAGER — DATE

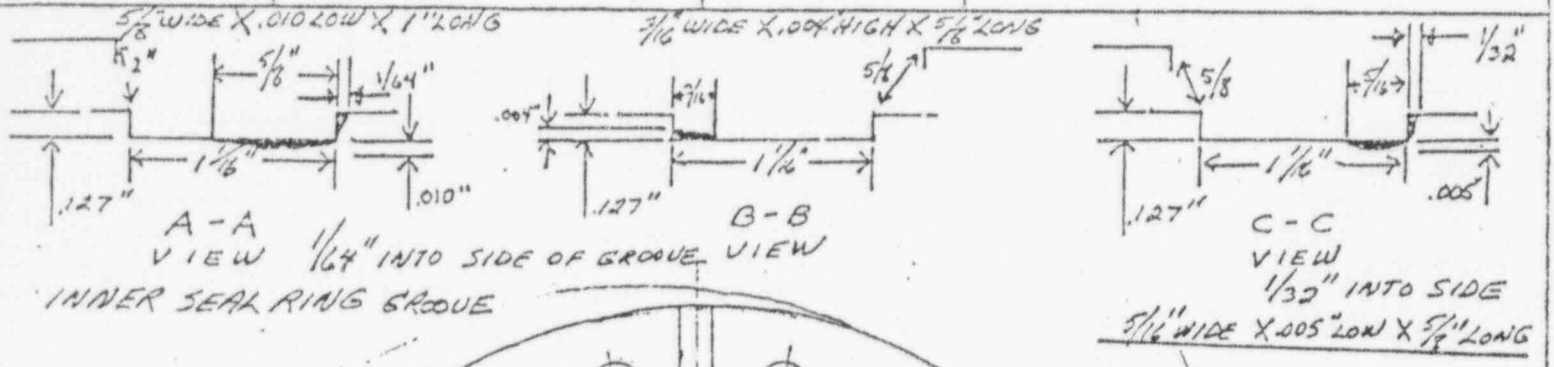
27. NONCONFORMITY CLOSED

FIELD QUALITY CONTROL SUPV. — DATE

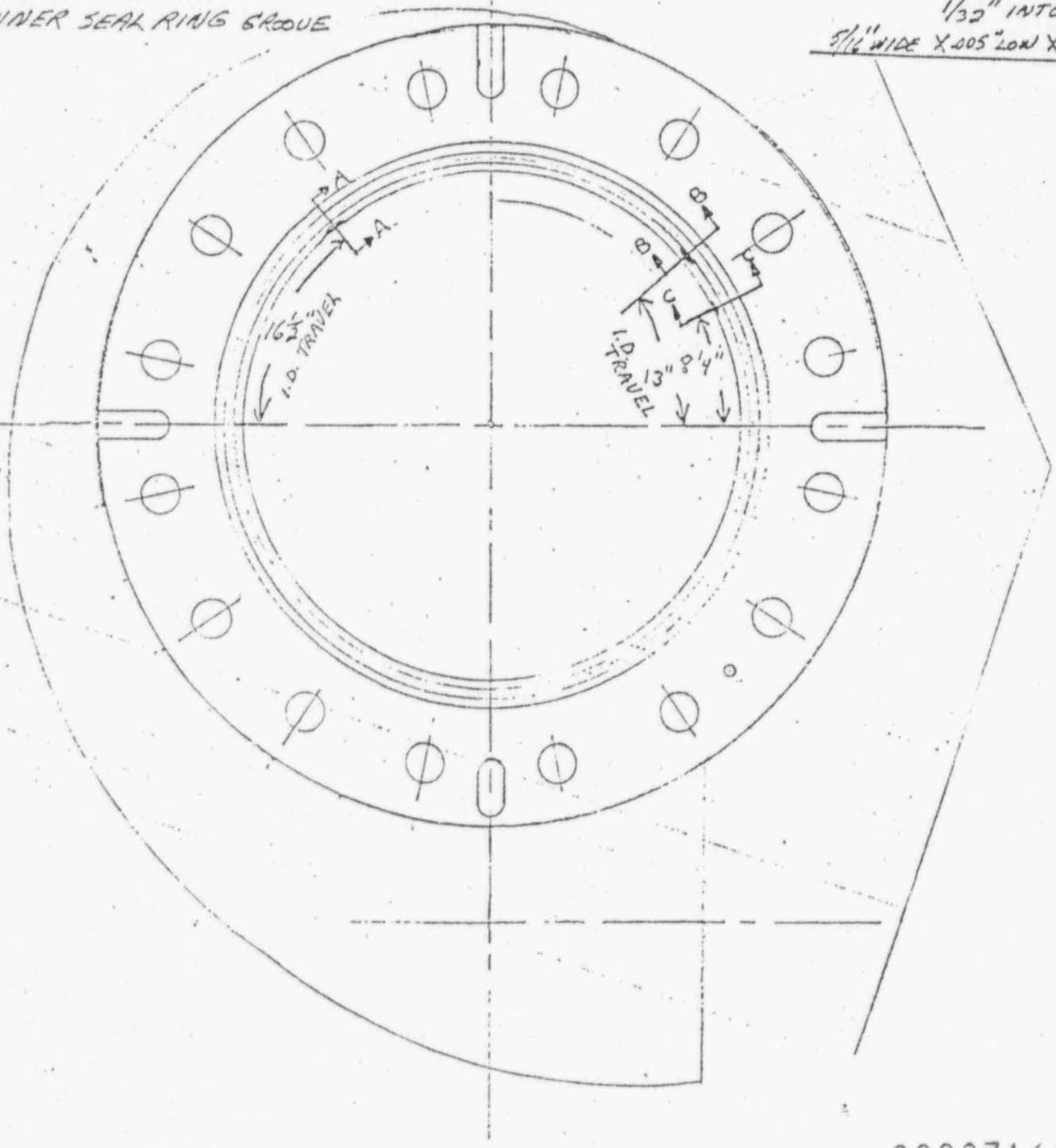
SEQUENTIAL NUMBER № 1685

REPORT OF NONCONFORMITY

B NUMBER	UNIT NUMBER	DATE	REPORT OF NONCONFORMITY #
CL 238	1 P51A Pump Casing	10-31-79	1685



INNER SEAL RING GROOVE



90007166

BARCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

1. JOB NUMBER	2. UNIT NUMBER	3. DATE	4. ITEM NAME	5. ITEM NUMBER
CL-238	1	10-31-79	RCP Motor Mount	1P51B

VENDOR MANUFACTURER	7. DISCOVERED DURING	8. REJECT TAG NUMBER	9. PROCEDURE NUMBER
Byron Jackson	☐ RECEIVING ☐ TEST ☒ CONST.		FCP 68

10. SPECIFICATION NUMBER	11. DRAWING NUMBER	12. PRIOR REPORT OF NONCONFORMITY #
N/A	1F7623 Rev. K	N/A

13. DESCRIPTION OF NONCONFORMITY

Pitted areas are present on the bottom flange of the motor mount, located within the inner and outer gasket seating surface. See attached sketch.

14. REPORTED BY		15. VERIFIED BY		16. CORRECTIVE ACTION REQUIRED
for G. C. Ashworth	10-31-79	R. Shepe	10-31-79	☐ YES ☒ NO
NAME	DATE	NAME	DATE	

17. REPORTABLE DEFICIENCY IN ACCORDANCE WITH 10 CFR 50.55 (e)

☐ YES ☒ NO — H. H. Lizon — FIELD PROJECT ENGINEER — 10-31-79 DATE

18. RECOMMENDED DISPOSITION: ☐ N/A ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

19. TECHNICAL JUSTIFICATION/OR RECOMMENDED DISPOSITION INSTRUCTIONS

Vendor to supply disposition

H. H. Lizon — FIELD PROJECT ENGINEER — 10-31-79 DATE

20. ACTUAL DISPOSITION: ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

21. DISPOSITION INSTRUCTIONS See SPR 77

Package in accordance with Byron-Jackson procedures and return the motor mount. Upon return of the reworked motor mount, QC to receipt inspect in accordance with 9-QPP-108.

H. H. Lizon — FIELD PROJECT ENGINEER — 11-13-79 DATE

22. APPROVALS

B&W FQC — R. W. Shepe 11-13-79 — SIGNATURE DATE — OTHER — SIGNATURE DATE

OWNER/AGENT — [illegible] 11/14/79 — SIGNATURE DATE — OTHER — SIGNATURE DATE

23. ANI REVIEW — SIGNATURE DATE

24. DISPOSITION COMPLETED		25. DISPOSITION VERIFICATION ☐ ACCEPTABLE ☐ UNACCEPTABLE
NAME	DATE	NAME DATE REPORT OF NONCONFORMITY #

25. CORRECTIVE ACTION

90007167

FIELD PROJECT MANAGER — DATE

27. NONCONFORMITY CLOSED

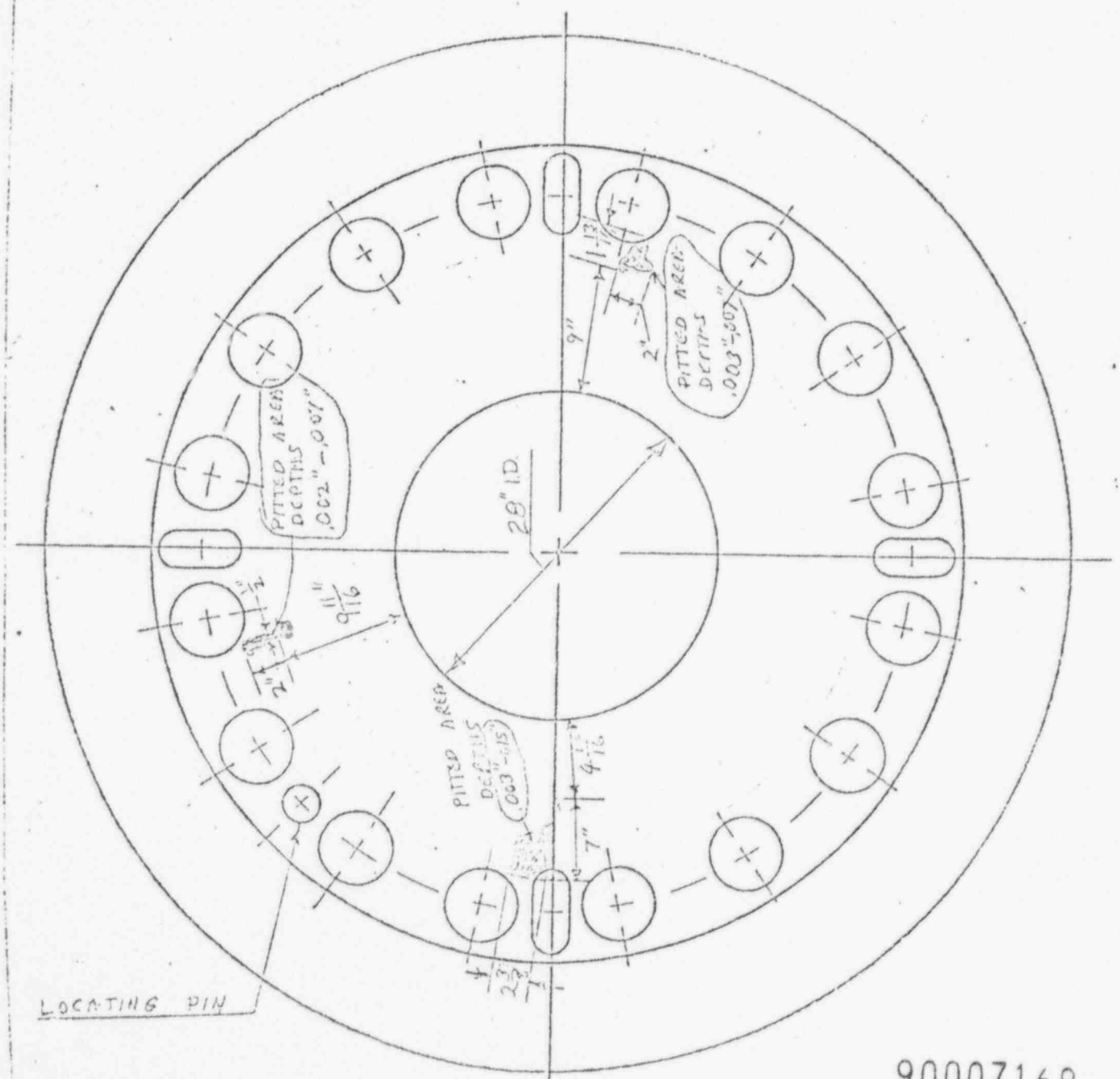
FIELD QUALITY CONTROL SUPV. — DATE

SEQUENTIAL NUMBER № 1686

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

NUMBER	UNIT NUMBER	DATE	REPORT OF NONCONFORMITY #
CL 238	#1 1P51 B Motor Mount	10-31-79	1686



BOTTOM VIEW

90007168

BDS-71071-0 (9-74)

SITE PROBLEM REPORT	PRIORITY 1 [ ] 2 [X] 3 [ ] 4 [ ] NONE [ ]	BABCOCK & WILCOX
CUSTOMER: Consumers Power Co.	ORIGINATOR: H.A. Gavenchak DATE: 11/2/79	DOC ID: 13 / NSS NO.: 0015 / SFR NO.: 77 / REV. NO.: 0
SUPPLIER: Tyler Jackson	PA. NO.: 660-0015-A2	PART NO./TASK-GROUP-SEQ. NO.: A2 A0 006
TITLE (maximum 30 characters): E.H. Pump Driver Mount		LEAD MANAGER

DESCRIPTION OF PROBLEM:

Pitted Areas On Bottom Sealing Flange. See Attached Sketch For Locations & Sizes.

B&W NCR #-1686

STATUS-ACTION TO DATE, INCLUDING PERSONS CONTACTED:

John Frost - Lynchburg
C.E. Mahaney - Lynchburg

FURTHER ACTION RECOMMENDED BY SITE PERSONNEL:

Vendor To Supply Disposition

RESOLUTION

Return Driver Mount to Vendor for rework/repair.

Packaging for shipment, rework/repair (machining, welding, NDE, testing, etc.), documentation, and packaging for reshipment shall be per the requirements of B-J procedures which have previously been submitted to and approved by B&W for use on the Consumers contracts.

[ ] INFORMATION ONLY

TCN REQUIRED YES	TCN REQUIRED NO	POTENTIAL SAFETY CONCERN YES	POTENTIAL SAFETY CONCERN NO	RESOLUTION DOC. NO.
[ ]	[X]	[ ]	[X]	

		DATE
B-J SUPERVISOR: [illegible]		11-2-79
REVIEWED BY: [illegible]		11-7-79
REVIEWED BY: [illegible] for B&W		11-7-79
APPROVED BY: [illegible]		11-7-79
CLOSED OUT BY: 90007169		DATE

SFR CLOSEOUT REPORT:

SHEET of

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

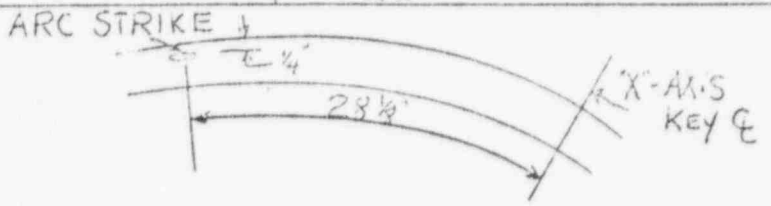
1. JOB NUMBER	2. UNIT NUMBER	3. DATE	4. ITEM NAME	5. ITEM NUMBER
CL-238	#2	11-2-79	Reactor Vessel	2T-51

6. VENDOR/MANUFACTURER	7. DISCOVERED DURING	8. REJECT TAG NUMBER	9. PROCEDURE NUMBER
Babcock & Wilcox	☐ RECEIVING ☐ TEST ☒ CONST.	#339	#135

10. SPECIFICATION NUMBER	11. DRAWING NUMBER	12. PRIOR REPORT OF NONCONFORMITY?
FS-III-1A	C-376	N/A

13. DESCRIPTION OF NONCONFORMITY

Arc strike discovered on core support ledge 3/16"w x 3/8" L.



14. REPORTED BY		15. VERIFIED BY		16. CORRECTIVE ACTION REQUIRED
R Lluzo for R Brown	11-2-79	R W Thorp	11-2-79	☐ YES ☒ NO
NAME	DATE	NAME	DATE	

17. REPORTABLE DEFICIENCY IN ACCORDANCE WITH 10 CFR 50.55 (e)

☐ YES ☒ NO — H. H. Lin — FIELD PROJECT ENGINEER — 11-2-79 DATE

18. RECOMMENDED DISPOSITION: ☐ N/A ☐ REWORK ☒ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

19. TECHNICAL JUSTIFICATION/OR RECOMMENDED DISPOSITION INSTRUCTIONS

See attachment

H. H. Lin — FIELD PROJECT ENGINEER — 11-7-79 DATE

20. ACTUAL DISPOSITION: ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

21. DISPOSITION INSTRUCTIONS

FIELD PROJECT ENGINEER — DATE

22. APPROVALS

B&W FQC — SIGNATURE — DATE — OTHER — SIGNATURE — DATE

OWNER/AGENT — SIGNATURE — DATE — OTHER — SIGNATURE — DATE

23. ANI REVIEW — SIGNATURE — DATE

24. DISPOSITION COMPLETED — NAME — DATE

25. DISPOSITION VERIFICATION ☐ ACCEPTABLE ☐ UNACCEPTABLE — NAME — DATE — REPORT OF NONCONFORMITY #

25. CORRECTIVE ACTION

90007170

FIELD PROJECT MANAGER — DATE

27. NONCONFORMITY CLOSED

FIELD QUALITY CONTROL SUPV. — DATE

SEQUENTIAL NUMBER № 1687

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

JOB NUMBER	UNIT NUMBER	DATE	REPORT OF NONCONFORMITY #
CL-238	#2	11-6-79	1687

1. Grind out heat affected zone in depth stages of .010".

2. After each grinding stage Etch in accordance with 9-WG-104.

3. When the heat affected zone has been completely removed blend grind to 3:1 taper with 1" min. root radius.

4. NDE Examine in accordance with 9-PT-104.

5. Map, record and transmit size and depth of cavity including amount of base metal exposed and min. root radius.

90007171

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

1. CONTROL NUMBER	2. CONTROL NUMBER	3. DATE	4. ITEM NAME	5. ITEM NUMBER
CL-238	1	11-7-79	RC Pump Casing	1P51D

6. VENDOR MANUFACTURER	7. DISCOVERED DURING ☐ RECEIVING ☐ TEST ☒ INSPECTION	8. REJECT TAG NUMBER	9. PROCEDURE NUMBER
Byron Jackson		#341	FCP 131 Seq.

10. SPECIFICATION NUMBER	11. DRAWING NUMBER	12. REPORT OF NONCONFORMITY #
FS 111.3	1F7623 Rev. K	N/A

13. DESCRIPTION OF NONCONFORMITY

Several high and low areas are present in the gasket grooves of the pump casing. See attached sketch for details.

14. REPORTED BY		15. VERIFIED BY		16. CORRECTIVE ACTION REQUIRED
A.C. Abbruzzese Jr. for	11-7-79	R.W. Thone	11-7-79	☐ YES ☒ NO
NAME	DATE	NAME	DATE	

17. REPORTABLE DEFICIENCY IN ACCORDANCE WITH 10 CFR 50.55 (e)

☐ YES ☒ NO — H. H. Linn — FIELD PROJECT ENGINEER — 11-7-79 DATE

18. RECOMMENDED DISPOSITION: ☐ N/A ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

19. TECHNICAL JUSTIFICATION/OR RECOMMENDED DISPOSITION INSTRUCTIONS

1) Vendor to supply disposition.

H. H. Linn — FIELD PROJECT ENGINEER — 11-13-79 DATE

20. ACTUAL DISPOSITION: ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

21. DISPOSITION INSTRUCTIONS

FIELD PROJECT ENGINEER — DATE

22. APPROVALS

B&W FQC — SIGNATURE — DATE — OTHER — SIGNATURE — DATE

OWNER/AGENT — SIGNATURE — DATE — OTHER — SIGNATURE — DATE

23. ANI REVIEW — SIGNATURE — DATE

24. DISPOSITION COMPLETED — NAME — DATE

25. DISPOSITION VERIFICATION — NAME — DATE — ☐ ACCEPTABLE ☐ UNACCEPTABLE — REPORT OF NONCONFORMITY #

25. CORRECTIVE ACTION

90007172

FIELD PROJECT MANAGER — DATE

27. NONCONFORMITY CLOSED

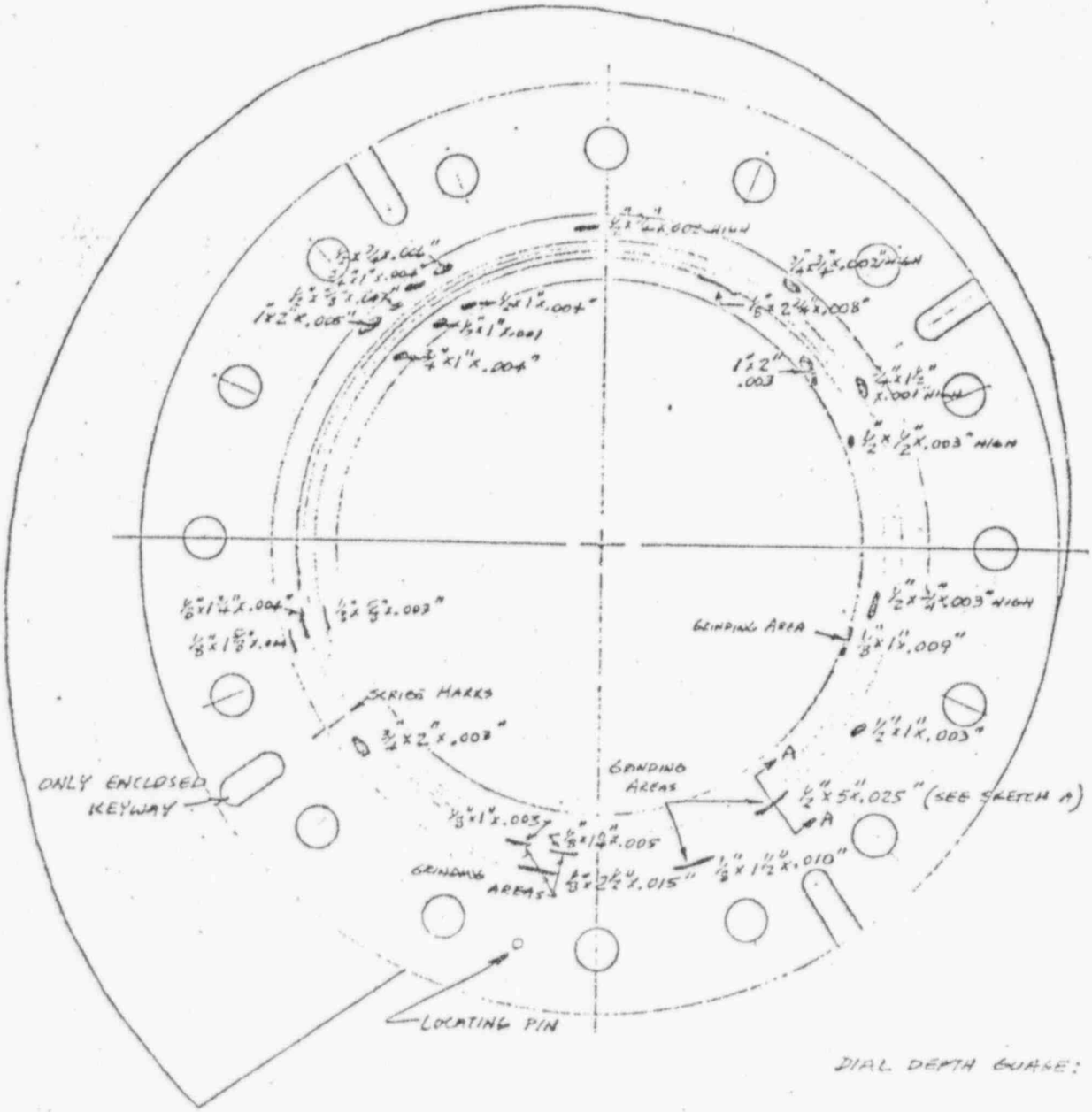
FIELD QUALITY CONTROL SUPV. — DATE

SEQUENTIAL NUMBER № 1688

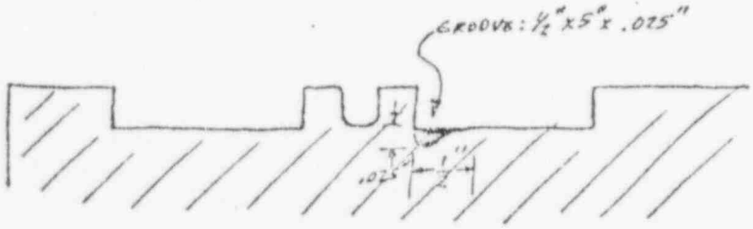
BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

NUMBER	UNIT NUMBER #1	DATE	REPORT OF NONCONFORMITY #
L 238	RC PUMP CASING 1PS1D	11-7-79	1688



DIAL DEPTH GUAGE: CU 3-15



SKETCH A-A

TYPICAL GASKET GROOVE CROSS-SECTION

11-6-79

90007173

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

1. JOB NUMBER	2. UNIT NUMBER	3. DATE	4. ITEM NAME	5. ITEM NUMBER
CL-238	2	11-8-79	"A" Steam Gen.	2E51A

6. VENDOR/MANUFACTURER	7. DISCOVERED DURING	8. REJECT TAG NUMBER	9. PROCEDURE NUMBER
B&W Mt. Vernon	☐ RECEIVING ☐ TEST ☒ CONST.	342	137

10. SPECIFICATION NUMBER	11. DRAWING NUMBER	12. PRIOR REPORT OF NONCONFORMITY#
N/A	1100669E Rev. 1	N/A

13. DESCRIPTION OF NONCONFORMITY

Two generator tubes were damaged during grinding operations of shroud handhole in "A" Generator. The tubes were cut into in three areas. (See attached sketch) The damaged tubes are at the eleventh tube sheet penetration.

14. REPORTED BY	15. VERIFIED BY	16. CORRECTIVE ACTION REQUIRED
JR Jones 14/7/79 (Wear) — NAME; 11-7-79 — DATE	RW Shore — NAME; 11-8-79 — DATE	☒ YES ☐ NO

17. REPORTABLE DEFICIENCY IN ACCORDANCE WITH 10 CFR 50.55 (e)

☐ YES ☒ NO — H. H. Lin — FIELD PROJECT ENGINEER — 11-8-79 — DATE

18. RECOMMENDED DISPOSITION: ☐ N/A ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

19. TECHNICAL JUSTIFICATION/OR RECOMMENDED DISPOSITION INSTRUCTIONS

Vendor to supply disposition

H. H. Lin — FIELD PROJECT ENGINEER — 11-13-79 — DATE

20. ACTUAL DISPOSITION: ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

21. DISPOSITION INSTRUCTIONS

FIELD PROJECT ENGINEER — DATE

22. APPROVALS

B&W FQC — SIGNATURE — DATE — OTHER — SIGNATURE — DATE

OWNER/AGENT — SIGNATURE — DATE — OTHER — SIGNATURE — DATE

23. ANI REVIEW — SIGNATURE — DATE

24. DISPOSITION COMPLETED — NAME — DATE

25. DISPOSITION VERIFICATION — NAME — DATE — ☐ ACCEPTABLE ☐ UNACCEPTABLE — REPORT OF NONCONFORMITY #

25. CORRECTIVE ACTION

90007174

FIELD PROJECT MANAGER — DATE

27. NONCONFORMITY CLOSED

FIELD QUALITY CONTROL SUPV. — DATE

SEQUENTIAL NUMBER № 1689

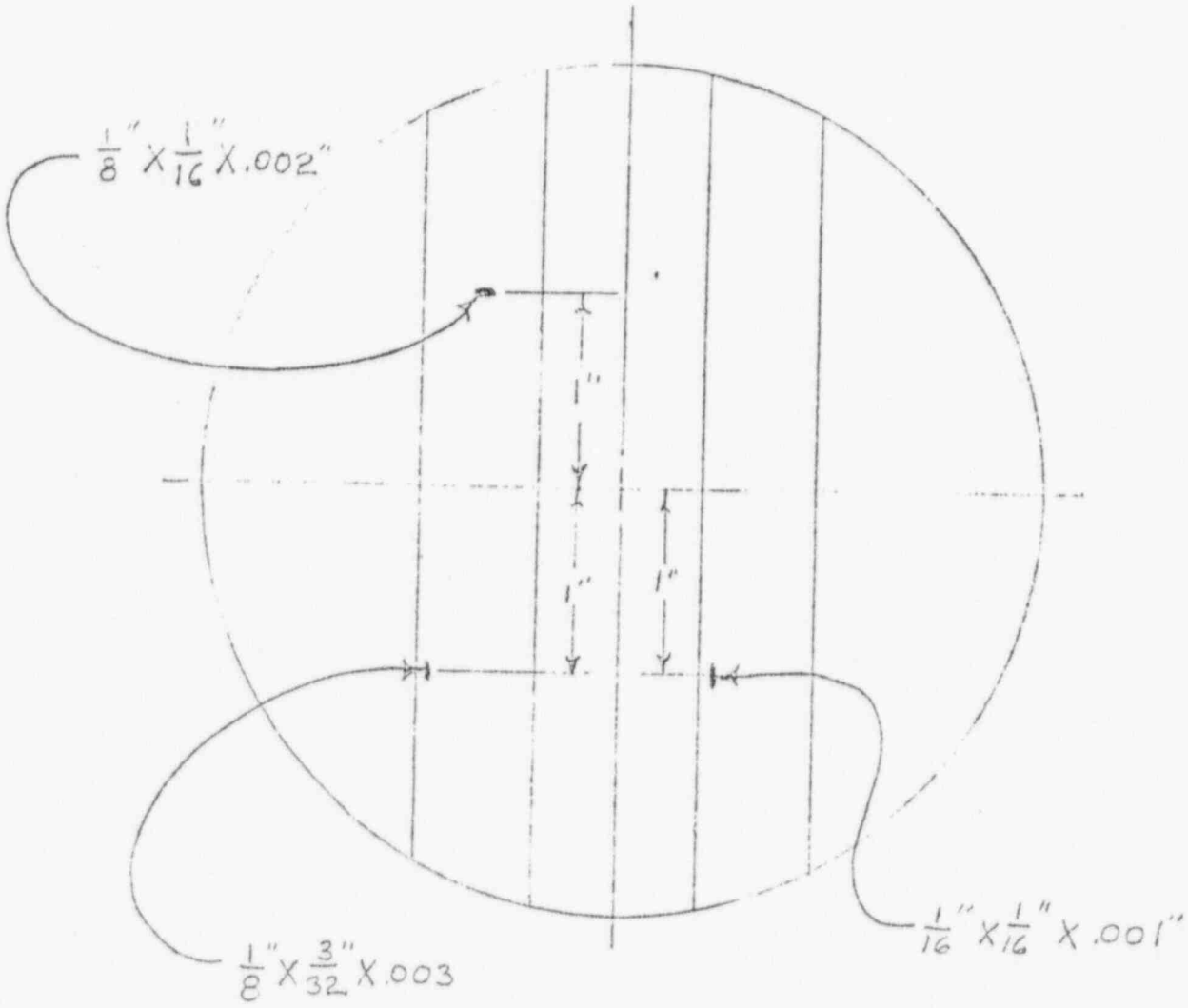
BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

B NUMBER	UNIT NUMBER	DATE	REPORT OF NONCONFORMITY #
CL 238	2	11-8-79	1689

2E51A

HAND HOLE #11



90007175

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

1. JOB NUMBER	2. UNIT NUMBER	3. DATE	4. ITEM NAME	5. ITEM NUMBER
L-238	2	11-9-79	Spool Sub Assy	Mat'l between FW1 & FW4

6. VENDOR MANUFACTURER	7. DISCOVERED DURING	8. REJECT TAG NUMBER	9. PROCEDURE NUMBER
Babcock & Wilcox	☐ RECEIVING ☐ TEST ☒ CONST.	343	9QPP102 FCP #180

10. SPECIFICATION NUMBER	11. DRAWING NUMBER	12. PRIOR REPORT OF NONCONFORMITY#
N/A	FSK-M-2CCA-91-1	None

13. DESCRIPTION OF NONCONFORMITY Material has been fabricated under FCP #180; Inspect seq. 030, & 045. Have been bypassed during fabrication of the material between field weld #1 & field weld #4 per F.C.P. Sketch SK-T92, this is a violation of 9QPP102.

14. REPORTED BY	15. VERIFIED BY	16. CORRECTIVE ACTION REQUIRED
Reinhardt 11-9-79 (NAME / DATE)	R W Hope 11-9-79 (NAME / DATE)	☒ YES ☐ NO

17. REPORTABLE DEFICIENCY IN ACCORDANCE WITH 10 CFR 50.55 (e)

☐ YES ☒ NO — H. H. Lim (FIELD PROJECT ENGINEER) — 11-9-79 (DATE)

18. RECOMMENDED DISPOSITION: ☒ N/A ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

19. TECHNICAL JUSTIFICATION OR RECOMMENDED DISPOSITION INSTRUCTIONS
N/A

H. H. Lim (FIELD PROJECT ENGINEER) — 11-13-79 (DATE)

20. ACTUAL DISPOSITION: ☐ REWORK ☐ REPAIR ~~☒ REPLACE~~ H. H. Lim 11-26-79 ☐ RETURN ☒ ACCEPT AS IS

21. DISPOSITION INSTRUCTIONS ~~Weld 4 is to be cut out in accordance with weld repair data sheet and re fabricated in accordance with FCP 180.~~
~~The spool piece between welds 1 and 4 must have identifications removed if present and scraped.~~ SEE ATTACHMENT H. H. Lim 11-26-79 ~~QC must witness identification removal and scraping of spool piece.~~
H. H. Lim (FIELD PROJECT ENGINEER) — 11-13-79 (DATE)

22. APPROVALS
B&W FQC: R W Hope 11-26-79 (SIGNATURE / DATE) OTHER: (SIGNATURE / DATE)
OWNER/AGENT: (SIGNATURE / DATE) OTHER: (SIGNATURE / DATE)

23. ANI REVIEW: (SIGNATURE / DATE)

24. DISPOSITION COMPLETED: (NAME / DATE)

25. DISPOSITION VERIFICATION: ☐ ACCEPTABLE ☐ UNACCEPTABLE (NAME / DATE) REPORT OF NONCONFORMITY

25. CORRECTIVE ACTION

A meeting will be held with all superintendents regarding the working of the FCP, skipping, traceability, sequences, and QC witness points.

90007176

V. N. Agnihotri (FIELD PROJECT MANAGER) — 11/26/79 (DATE)

27. NONCONFORMITY CLOSED

(FIELD QUALITY CONTROL SUPV.) (DATE)

SEQUENTIAL NUMBER № 1690

REPORT OF NONCONFORMITY

B NUMBER	UNIT NUMBER	DATE	REPORT OF NONCONFORMITY #
CL-238	2	11-26-79	1690

A. Material Identification (Sequence 030)

1. B&WCC has received 21 pieces of random length 1" Sch 160 Class 1 pipe. The 1" Sch 160 pipe was received under two heat numbers (462640) & (483629). 17 pieces were received under (462640) and 4 pieces under (483629). Spool piece 1-4 is 1" Sch 160 and marked (462640). All stock was inventoried and quantities verified.quanity and heat numbers double check therefore accept spool 1-4 as is.

2. See copy of RIR 344.

B. Field Bending (Sequence 045)

1. QC to inspect the three field bends in spool 1-4 as listed in sequence 045 of FCP 180.

90007177

	SCH 160	HT #	TYPE	STORAGE LEVEL
	20-2 3/4	463726	SA-312 TP-316	IV
	3/4" SCH 160	HT #	TYPE	
1	18-7 3/4	483095	SA-312 TP-316	
2	18-2 1/2	"	"	
3	18-5 1/2	"	"	
4	21-7 3/8	"	"	
5	17-3 3/4	"	"	
6	18-7	"	"	
7	18-8 7/8	"	"	
8	18-1 3/4	"	"	
9	19-1 1/2	"	"	
10	18-3	"	"	
11	18-7 5/8	"	"	
12	21-3 3/8	"	"	
13	20-6 3/4	"	"	
14	18-5 3/4	"	"	
15	17-3 1/4	"	"	
16	18-2 7/8	"	"	
17	18-7 1/2	"	"	
18	19-1	"	"	
19	18-7 1/2	"	"	
	1 1/2 SCH 160	HT #	TYPE	
1	24-3 7/8	435653	SA-312 TP-316	
2	24-3 1/8	"	"	

	1" SCH 160	HT #	TYPE	STORAGE LEVEL
1	21-0 1/8	462640	SA-312 TP-316	IV
2	22-1 7/8	"	"	
3	22-4 7/8	"	"	
4	20-1 5/8	"	"	
5	22-4 5/8	"	"	
6	21-10 3/8	483629	"	
7	22-1 3/4	462640	"	
8	22-1	"	"	
9	21-9 1/8	"	"	
10	19-7 1/8	483629	"	7-8" - Sch 80 10-6 Lin 93 1-5 Lin 23
11	21-8 1/2	462640	"	Lin 19-7
12	20-0 3/8	483629	"	
13	21-7 3/4	462640	"	"
14	21-8 1/8	"	"	
15	21-9 1/4	"	"	
16	20-10 3/4	483629	"	
17	20-7 5/8	462640	"	
18	21-5 3/4	"	"	
19	21-5 1/8	"	"	
20	21-9 1/4	"	"	
21	21-11 1/4	"	"	

18 EA. 3/4"ϕ SA 194 GR 2H HEX. NUTS

1 EA. 1" GLOBE VALVE 1"CCA-YGB-PR (AB)

P.O. # M-129-A ITEM 2.3 S/N 05-11-11

90007178

RIR # 344 PAGE 3 OF 3

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

PAGE 1 OF 2 11-26-79

REPORT OF NONCONFORMITY

1. JOB NUMBER	2. UNIT NUMBER	3. DATE	4. ITEM NAME	5. ITEM NUMBER
L 238	2	11-10-79	Spool Assy.	Spool 7-8 & Spool 16-17

6. VENDOR/MANUFACTURER	7. DISCOVERED DURING	8. REJECT TAG NUMBER	9. PROCEDURE NUMBER
Babcock & Wilcox C. Co.	☐ RECEIVING ☐ TEST ☒ CONST.	344 & 345	9-QPP-102 FCP 175

10. SPECIFICATION NUMBER	11. DRAWING NUMBER	12. PRIOR REPORT OF NONCONFORMITY#
N/A	FSK-M-2CCA-48-1	None

13. DESCRIPTION OF NONCONFORMITY

A 3/4" line designated 2CCA-48 is to be fabricated as a sub-Assembly in FCP 175 for Unit 2. During fabrication for the two spools above, seq. 030 & Seq. 080 were bypassed, this is a violation of 9QPP102.

14. REPORTED BY		15. VERIFIED BY		16. CORRECTIVE ACTION REQUIRED
J Heimbaugh	11-10-79	R W Hope	11-10-79	☒ YES ☐ NO
NAME	DATE	NAME	DATE	

17. REPORTABLE DEFICIENCY IN ACCORDANCE WITH 10 CFR 50.55 (e)

☐ YES ☒ NO — W. H. Liou, FIELD PROJECT ENGINEER — 11-10-79 DATE

18. RECOMMENDED DISPOSITION: ☒ N/A ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

19. TECHNICAL JUSTIFICATION/OR RECOMMENDED DISPOSITION INSTRUCTIONS

N/A

W. H. Liou, FIELD PROJECT ENGINEER — 11-21-79 DATE

20. ACTUAL DISPOSITION: ☐ REWORK ☒ REPAIR ☐ REPLACE ☐ RETURN ☒ ACCEPT AS IS

21. DISPOSITION INSTRUCTIONS

See Attachment

W. H. Liou, FIELD PROJECT ENGINEER — 11-21-79 DATE

22. APPROVALS

B&W FQC: R W Hope — SIGNATURE — 11-26-79 DATE — OTHER: SIGNATURE — DATE

OWNER/AGENT: SIGNATURE — DATE — OTHER: SIGNATURE — DATE

23. ANI REVIEW: SIGNATURE — DATE

24. DISPOSITION COMPLETED: NAME — DATE

25. DISPOSITION VERIFICATION: NAME — DATE — ☐ ACCEPTABLE ☐ UNACCEPTABLE REPORT OF NONCONFORMITY

26. CORRECTIVE ACTION

A meeting will be held with all superintendents regarding the working of the FCP, skipping, traceability, sequences, and QC witness points.

90007179

V. N. Agrawal, FIELD PROJECT MANAGER — 11/26/79 DATE

27. NONCONFORMITY CLOSED

FIELD QUALITY CONTROL SUPV. — DATE

SEQUENTIAL NUMBER № 1691

REPORT OF NONCONFORMITY

B NUMBER	UNIT NUMBER	DATE	REPORT OF NONCONFORMITY #
CL-238	2	11-20-79	1691

A. Material Identification (Sequence 030)

1. B&WCC has received 19 pieces of random length 3/4" Sch 160 Class 1 pipe. All 19 pieces were received under one head number (483095). Spool piece 7-8 is 3/4" Sch 160 and marked 483095. All stock was inventoried and quantities verified. Quanity and heat numbers double check therefore accept spool 7-8 as is.

2. B&WCC has received 21 pieces of random length 1" Sch 160 Class 1 pipe. The 1" Sch 160 pipe was received under two heat numbers (462640) & (483629). 17 pieces were received under (462640) and 4 pieces under (483629). Spool piece 16-17 is 1" Sch 160 and marked (462640) all stock was inventoried and quanitities verified. Quanity and heat numbers double check therefore accept spool 16-17 as is.

3. See attached copy of RIR 344.

B. Weld 7 & 8 are tacked for fit-up (sequence 080)

1. Grind tack welds loose. Do not gouge base metal.

2. NDE examine valve and pipe ends in accordance with 9-PT-103.

3. Fit-up and reweld welds 7 & 8 in accordance with sequences 080, 90, 120 and weld repair data sheets of FCP 175.

C. Welds 16 & 17 are complete (sequence 080)

1. NDE examine in accordance with 9-RT-100 to verify 1/16" gap at socket welds.

90007180

	2" SCH 160	HT #	TYPE	STORAGE LEVEL
1	20-2 3/4	463726	SA-312 TP-316	IV

	3/4" SCH 160	HT #	TYPE
1	18-7 3/4	483095	SA-312 TP-316
2	18-2 1/2	"	"
3	18-5 1/2	"	"
4	21-7 3/8	"	"
5	17-3 3/4	"	"
6	18-7	"	"
7	18-8 7/8	"	"
8	18-1 3/4	"	"
9	19-1 1/2	"	"
10	18-3	"	"
11	18-7 5/8	"	"
12	21-3 3/8	"	"
13	20-6 3/4	"	"
14	18-5 3/4	"	"
15	17-3 1/4	"	"
16	18-2 7/8	"	"
17	18-7 1/2	"	"
18	19-1	"	"
19	18-7 1/2	"	"

	1 1/2 SCH 160	HT #	TYPE
1	24-3 7/8	435653	SA-312 TP-316
2	24-3 1/8	"	"

	1" SCH 160	HT #	TYPE	STORAGE LE
1	21-0 1/8	462640	SA-312 TP-316	IV
2	22-1 7/8	"	"	
3	22-4 7/8	"	"	
4	20-1 5/8	"	"	
5	22-4 5/8	"	"	
6	21-10 3/8	483629	"	
7	22-1 3/4	462640	"	
8	22-1	"	"	
9	21-9 1/8	"	"	
10	19-7 1/8	483629	"	7-8 - Short 10-6 Long 1-5 Long
11	21-8 1/2	462640	"	19-7 2 CCA
12	20-0 3/8	483629	"	
13	21-7 3/4	462640	"	
14	21-8 1/8	"	"	
15	21-9 1/4	"	"	
16	20-10 3/4	483629	"	
17	20-7 5/8	462640	"	
18	21-5 3/4	"	"	
19	21-5 1/8	"	"	
20	21-9 1/4	"	"	
21	21-11 1/4	"	"	

18 EA. 3/4"ϕ SA 194 GR 2H HEX. NUTS

1 EA. 1" GLOBE VALVE 1"CCA-YG8-PR (AB)

P.O. # M-129-A ITEM 2.3 S/N OS-11-11

90007181

RIR # 344 PAGE 3 OF 3

2-1

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

1. JOB NUMBER	2. UNIT NUMBER	3. DATE	4. ITEM NAME	5. ITEM NUMBER
L-238	#1	11-12-79	RCP Motor Mount	1P51C

6. VENDOR/MANUFACTURER	7. DISCOVERED DURING	8. REJECT TAG NUMBER	9. PROCEDURE NUMBER
Byron Jackson	☐ RECEIVING ☐ TEST ☒ CONST.	346	FCP 67

10. SPECIFICATION NUMBER	11. DRAWING NUMBER	12. PRIOR REPORT OF NONCONFORMITY#
N/A	1F7623 Rev. K	N/A

13. DESCRIPTION OF NONCONFORMITY

A pitted area is present on the bottom flange of the motor mount, located within the outside gasket seating surface area. See attached sketch for details.

14. REPORTED BY	15. VERIFIED BY	16. CORRECTIVE ACTION REQUIRED
R. Hope for R. Brown 11-12-79 (NAME / DATE)	R. Hope 11-12-79 (NAME / DATE)	☐ YES ☒ NO

17. REPORTABLE DEFICIENCY IN ACCORDANCE WITH 10 CFR 50.55 (e)

☐ YES ☒ NO — W. H. Lein (FIELD PROJECT ENGINEER) — 11-12-79 (DATE)

18. RECOMMENDED DISPOSITION: ☐ N/A ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

19. TECHNICAL JUSTIFICATION/OR RECOMMENDED DISPOSITION INSTRUCTIONS

Vendor to supply disposition

W. H. Lein (FIELD PROJECT ENGINEER) — 11-13-79 (DATE)

20. ACTUAL DISPOSITION: ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

21. DISPOSITION INSTRUCTIONS

FIELD PROJECT ENGINEER — DATE

22. APPROVALS

B&W FQC — SIGNATURE — DATE — OTHER — SIGNATURE — DATE

OWNER/AGENT — SIGNATURE — DATE — OTHER — SIGNATURE — DATE

23. ANI REVIEW — SIGNATURE — DATE

24. DISPOSITION COMPLETED — NAME — DATE

25. DISPOSITION VERIFICATION — NAME — DATE — ☐ ACCEPTABLE ☐ UNACCEPTABLE — REPORT OF NONCONFORMITY #

25. CORRECTIVE ACTION

90007182

FIELD PROJECT MANAGER — DATE

27. NONCONFORMITY CLOSED

FIELD QUALITY CONTROL SUPV. — DATE

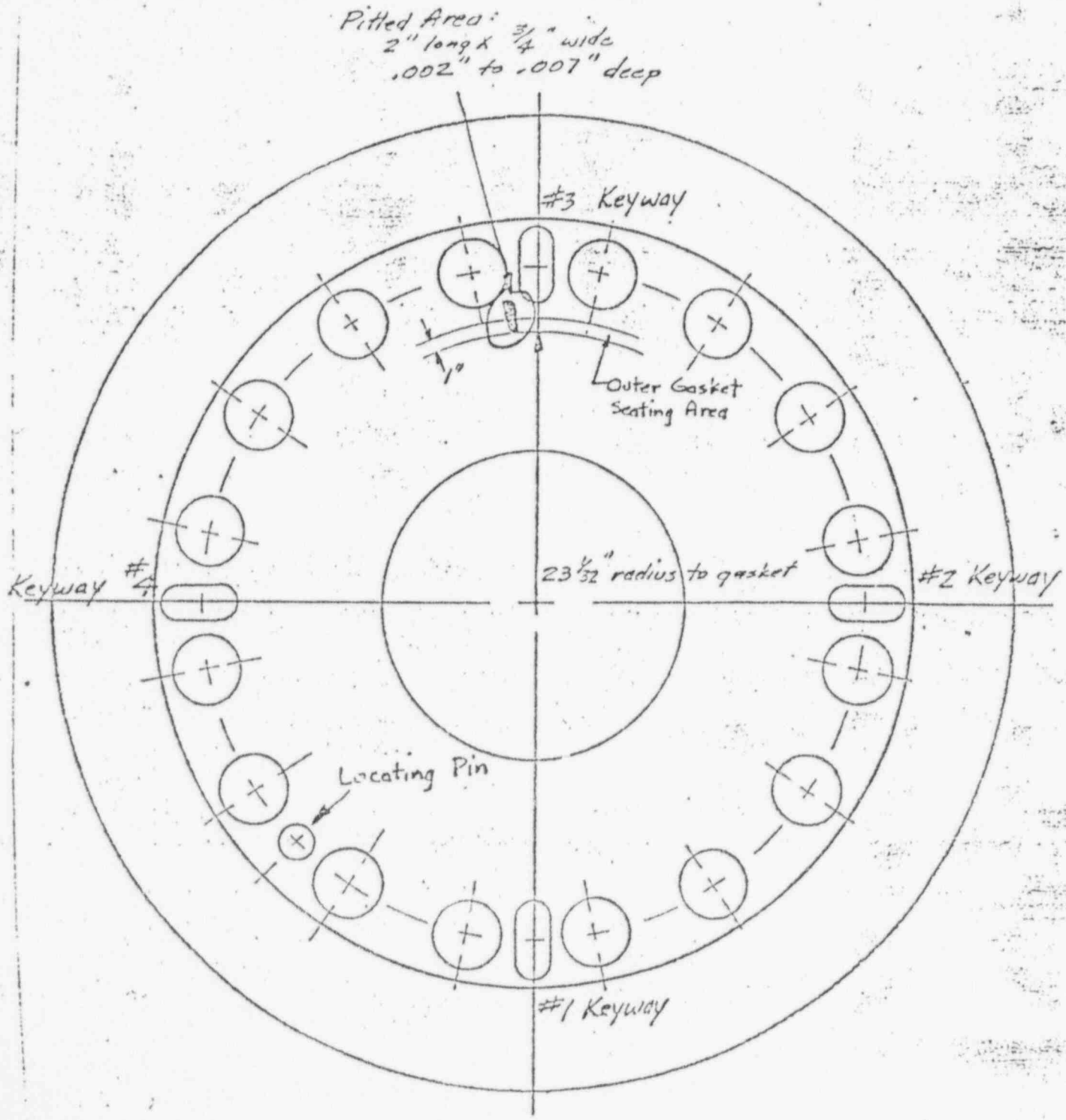
SEQUENTIAL NUMBER № 1692

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

NUMBER	UNIT NUMBER	DATE	REPORT OF NONCONFORMITY #
CL-238	#1 IPS1C MOTOR STAND	11-12-79	1692

CU 3-15



90007183

22-1

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

1. JOB NUMBER	2. UNIT NUMBER	3. DATE	4. ITEM NAME	5. ITEM NUMBER
CL-238	1	11-13-79	Spool Sub Assy.	1-CCA-013-603-01-03

6. VENDOR/MANUFACTURER	7. DISCOVERED DURING	8. REJECT TAG NUMBER	9. PROCEDURE NUMBER
ITT Grinnell	☐ RECEIVING ☐ TEST ☒ CONST.	348	9QPP115 FCP #20

10. SPECIFICATION NUMBER	11. DRAWING NUMBER	12. PRIOR REPORT OF NONCONFORMITY#
N/A	M603 Sheet 1	1679

13. DESCRIPTION OF NONCONFORMITY

Reject Tag #329 and a caution tag are attached to the referenced spool piece. Caution tag prohibits tacking or welding.

At field weld #6, fitting blocks have been welded to the spool & nozzle; at field weld #5 fit up has been made, root weld completed & remainder of weld is approx. 50% complete.

This is a violation of B&WCC tagging procedure, number 9QPP115.

14. REPORTED BY		15. VERIFIED BY		16. CORRECTIVE ACTION REQUIRED
[signature]	11-13-79	R W Shyre	11-13-79	☒ YES ☐ NO
NAME	DATE	NAME	DATE	

17. REPORTABLE DEFICIENCY IN ACCORDANCE WITH 10 CFR 50.55 (e)

☐ YES ☒ NO — H. H. Lim, FIELD PROJECT ENGINEER — 11-13-79 DATE

18. RECOMMENDED DISPOSITION: ☒ N/A ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

19. TECHNICAL JUSTIFICATION/OR RECOMMENDED DISPOSITION INSTRUCTIONS

N/A

H. H. Lim, FIELD PROJECT ENGINEER — 11-27-79 DATE

20. ACTUAL DISPOSITION: ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☒ ACCEPT AS IS

21. DISPOSITION INSTRUCTIONS

Accept as is
Disposition will be on NCR 1679

H. H. Lim, FIELD PROJECT ENGINEER — 11-27-79 DATE

22. APPROVALS

	SIGNATURE	DATE		SIGNATURE	DATE
B&W FQC	R W Shyre	11-28-79	OTHER		
OWNER/AGENT			OTHER		

23. ANI REVIEW — SIGNATURE — DATE

24. DISPOSITION COMPLETED		25. DISPOSITION VERIFICATION		☐ ACCEPTABLE ☐ UNACCEPTABLE
NAME	DATE	NAME	DATE	REPORT OF NONCONFORMITY

25. CORRECTIVE ACTION

B&W tagging sequence procedure 9-QPP-115 will be the topic of discussion at the weekly "Safety & Quality Control" meeting. The proper use of caution tags will be emphasized. A meeting will also be held with all Superintendants.

V. N. Dynnhan, FIELD PROJECT MANAGER — 11/28/79 DATE

27. NONCONFORMITY CLOSED

FIELD QUALITY CONTROL SUPV. — DATE

90007184

SEQUENTIAL NUMBER № 1693

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

1. JOB NUMBER	2. UNIT NUMBER	3. DATE	4. ITEM NAME	5. ITEM NUMBER
CL-238	1	11-28-79	Motor Mount	1P51D

6. VENDOR/MANUFACTURER	7. DISCOVERED DURING	8. REJECT TAG NUMBER	9. PROCEDURE NUMBER
Byron Jackson	☐ RECEIVING ☐ TEST ☒ CONST.	349	FCP 70 Seq. 030

10. SPECIFICATION NUMBER	11. DRAWING NUMBER	12. PRIOR REPORT OF NONCONFORMITY#
N/A	1F7623 Rev. K	N/A

13. DESCRIPTION OF NONCONFORMITY

Pitted area is present on the bottom flange of the Motor Mount located within the outer gasket seating surface area. See attached sketch for details.

14. REPORTED BY	15. VERIFIED BY	16. CORRECTIVE ACTION REQUIRED
R. D. Brown — NAME; 11-28-79 — DATE	RW Hayes — NAME; 11-28-79 — DATE	☐ YES ☒ NO

17. REPORTABLE DEFICIENCY IN ACCORDANCE WITH 10 CFR 50.55 (e)

☐ YES ☒ NO — H. A. Lain — FIELD PROJECT ENGINEER — 11-29-79 — DATE

18. RECOMMENDED DISPOSITION: ☐ N/A ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

19. TECHNICAL JUSTIFICATION/OR RECOMMENDED DISPOSITION INSTRUCTIONS

FIELD PROJECT ENGINEER — DATE

20. ACTUAL DISPOSITION: ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

21. DISPOSITION INSTRUCTIONS

FIELD PROJECT ENGINEER — DATE

22. APPROVALS

B&W FQC — SIGNATURE — DATE — OTHER — SIGNATURE — DATE

OWNER/AGENT — SIGNATURE — DATE — OTHER — SIGNATURE — DATE

23. ANI REVIEW — SIGNATURE — DATE

24. DISPOSITION COMPLETED — NAME — DATE

25. DISPOSITION VERIFICATION ☐ ACCEPTABLE ☐ UNACCEPTABLE — NAME — DATE — REPORT OF NONCONFORMITY #

25. CORRECTIVE ACTION

90007185

FIELD PROJECT MANAGER — DATE

27. NONCONFORMITY CLOSED

FIELD QUALITY CONTROL SUPV. — DATE

SEQUENTIAL NUMBER № 1694

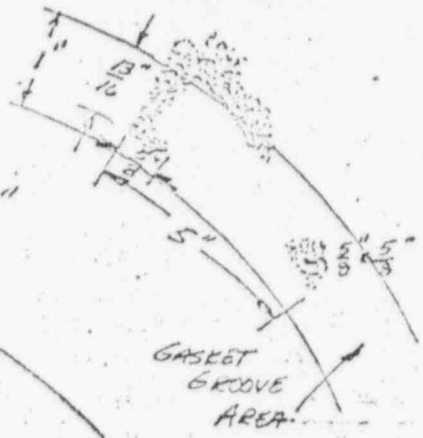
BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

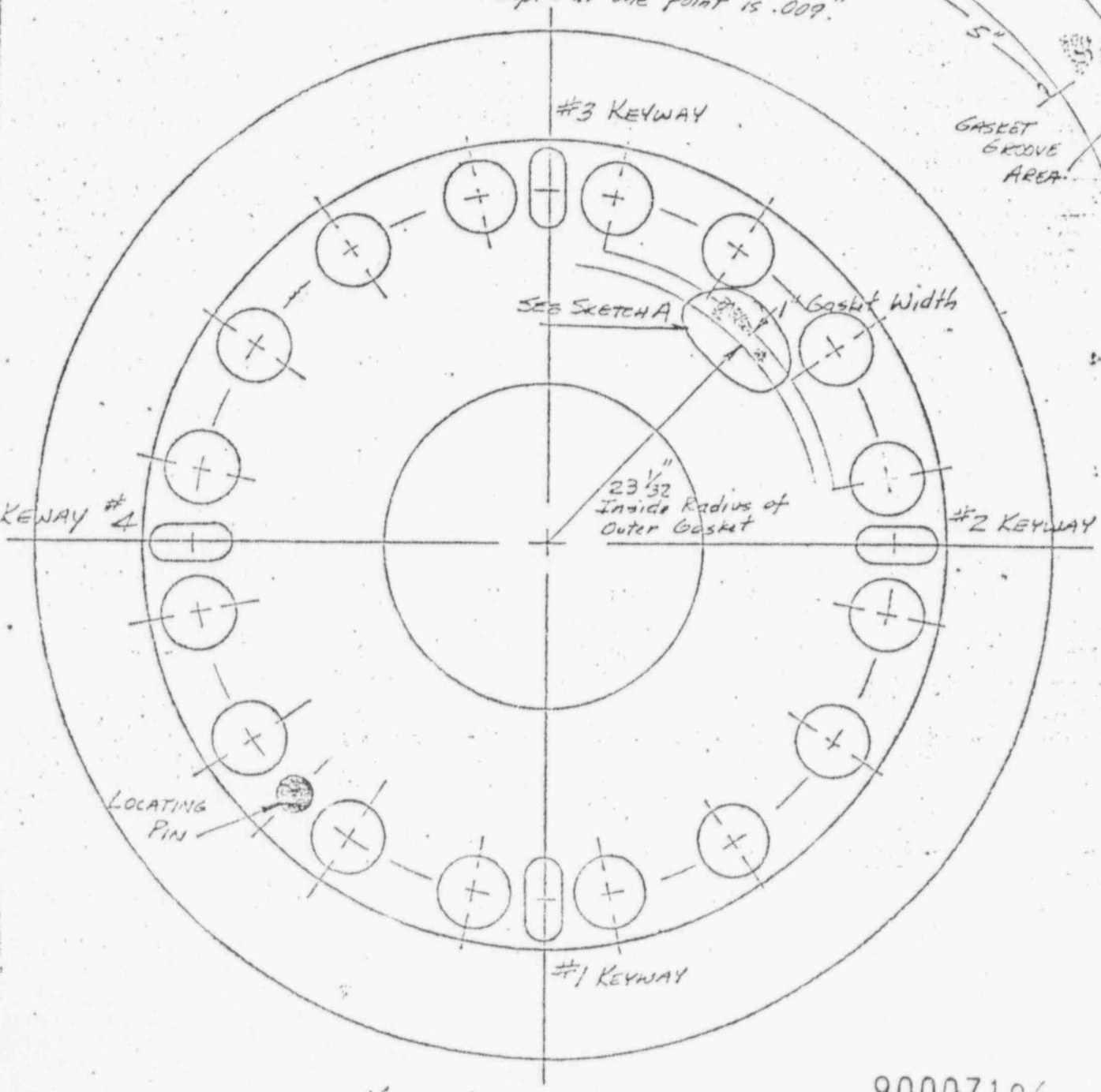
UNIT #1 FCP 70

NUMBER	UNIT NUMBER	DATE	REPORT OF NONCONFORMITY #
CL 238	1	11-28-79	1694

SKETCH - A



NOTE: Majority of pitted area has depth of .002" – .003." Maximum depth at one point is .009."



VIEW LOOKING AT BOTTOM OF 1P51D MOTOR MOUNT

90007186

C 32912

REPORT OF NONCONFORMITY

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

TO BE COMPLETED BY FIELD QC

SYSTEM OR PART NAME	JOB NO.	DATE
1 Reactor Coolant Piping	2 CL-238	3 2-6-79

DRAWING VIOLATED & REV.	VENDOR NAME	REJECT TAG NOS.
4 151873E, Rev. 1	5 B&W	6 139

PROC/SPEC. VIOLATED	P.O. NO.	PART NO.	SYSTEM DESIGNATION
7 Unit #1 FCP #43, Rev. 0	8 M1.9	9 B-40-2013-50-1	10 Reactor Coolant

CORRECTIVE ACTION REQUIRED
11 ☐ YES ☒ NO

REPORTED BY
12 J. W. Rheinhardt / Alan C. Ashmith

CONDITION DETAILS

Mk. No. A-46 nozzle weld prep was found damaged during receive and inspect of the part.

(See sketch for specific damage).

13

CONDITION DETAILS VERIFIED BY
14 B&W QC SUPV. R W Shope DATE 2-6-79

DISPOSITION REQUESTED FROM
☒ B&W CONSTRUCTION ☐
15 BY R W Shope DATE 2-6-79

TO BE COMPLETED BY F.P. ENGINEERING

REPORTABILITY PER 10 CFR 50.55 (E)
16 ☐ REPORTABLE ☒ NON-REPORTABLE BY D. E. Kinsala DATE 2-12-79

DISPOSITION INSTRUCTIONS

ACTION
☐ ACCEPT AS IS ☐ SCRAP ☒ REWORK ☐ RETURN TO VENDOR

Grind weld prep as necessary to remove damaged metal and to prepare joint for fit-up. 7/13/79 [illegible]
Inspect ground area per 9-PT-102. PT Accept Report #030066 11-29-79 D. Braun
Remove indications by grinding and clear per 9-PT-102.
N/R D. Braun 11-29-79

17

DISPOSITION APPROVED BY
18
B&W QC SUPV. R W Shope DATE 2-12-79
B&W FPE D. E. Kinsala DATE 2-12-79
OTHER R. E. Hutchins DATE 2/15/79
OTHER _____ DATE _____

DISPOSITION DETAILS BY
19 B&W Const. Co. EER

ACTION COMPLETED
20 BY R. Shope for D. Braun DATE 11-29-79

TO BE COMPLETED BY FIELD QC

REWORK INSPECTION
☒ REWORK COMPLETED-INSPECTION PERFORMED AND REWORK ACCEPTABLE
☐ REWORK COMPLETED-INSPECTION PERFORMED AND REWORK NOT ACCEPTABLE
21 BY R W Shope DATE 11-29-79
REPORT OF NONCONFORMITY _____

NON CONFORMITY CLOSED
22 B&W QC SUPV. R W Shope DATE 11-29-79

TO BE COMPLETED BY F.P. MANAGER

CORRECTIVE ACTION DESCRIPTION

90007187

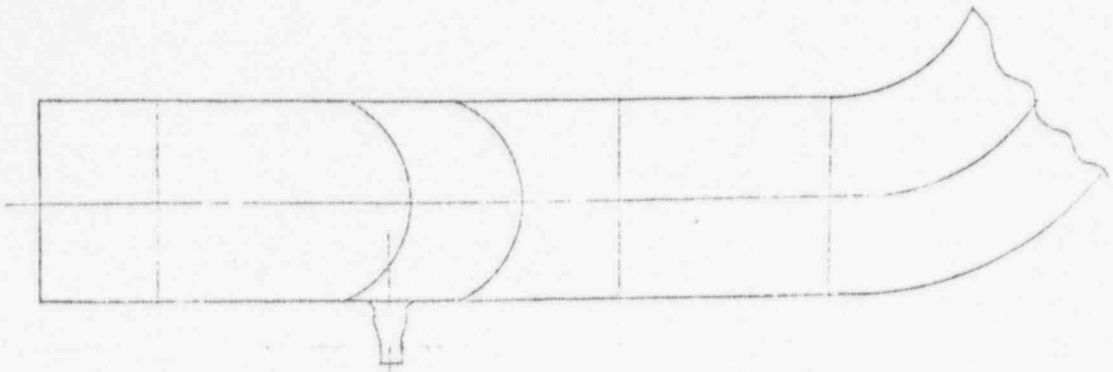
23

FIELD PROJECT MANAGER

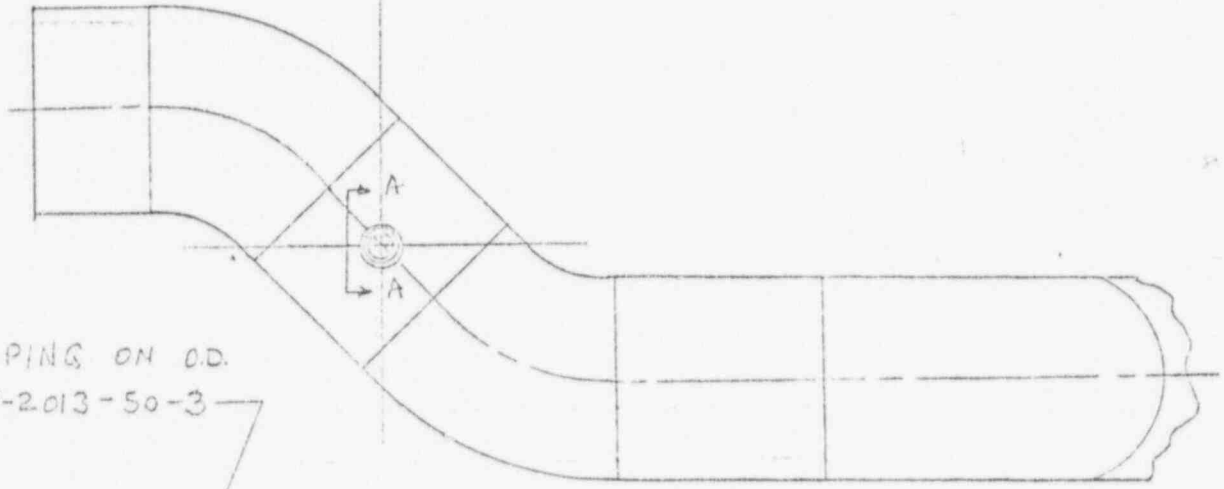
ANI

ANI ACCEPTANCE C. W. [illegible]
24 DATE 2-22-79

SEQUENTIAL NUMBER № 481

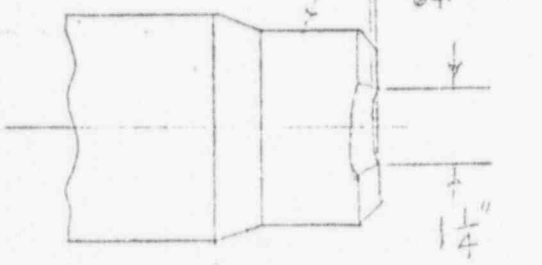


S/N 340-2013-50-1

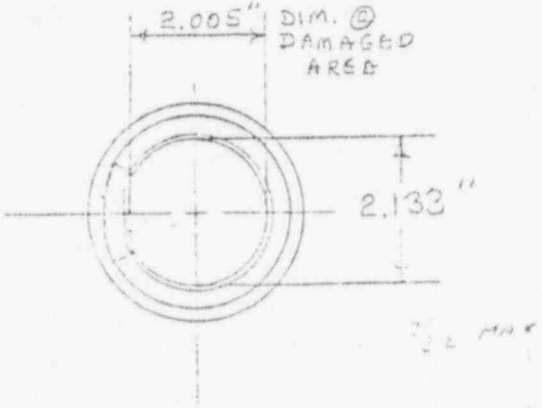


STAMPING ON O.D.
1-47-2013-50-3

MK. A-46



SECT. -AA-



CU 10-8

SEE REC. REPORT #000210
NCR # 481
2-6-78
A.C. Ashworth Jr.

90007188

31809-1

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY
MAGNETIC PARTICLE & LIQUID PENETRANT
INSPECTION REPORT

MAGNETIC PARTICLE REPORT

JOB NUMBER _____ WELD NUMBER _____ DATE _____

SYSTEM NUMBER _____ M.T. PROCEDURE NUMBER _____

WELD REPAIR NUMBER _____ SEQ. NUMBER _____ F.C.P. NUMBER _____

INSPECTION LEVEL	MATERIAL INSPECTED	SURFACE CONDITION	APPLICABLE CODE
☐ ROOT ☐ FINAL ☐ PARTIAL ☐ REPAIR	☐ WELD ☐ BASE METAL	☐ AS WELDED ☐ GROUND ☐ MACHINED	☐ ASME I ☐ ASME III ☐ ASME VIII ☐ B31.1 ☐ OTHER _____

CURRENT	EXAMINATION METHOD		EQUIPMENT	MAGNETIC PARTICLE
☐ A.C. ☐ D.C. ☐ D.C. RECTIFIED AMPERES _____	☐ PROD ☐ Y-5 YOKE	☐ WET ☐ DRY	MAKE _____ MODEL _____ SERIAL NUMBER _____	☐ FLOURESCENT ☐ RED ☐ GRAY

☐ ACCEPT ☐ REJECT

COMMENTS:

INSPECTOR _____

CERTIFIED LEVEL _____

LIQUID PENETRANT REPORT

JOB NUMBER CL-238 WELD NUMBER ~~12~~ 4B N/A DATE 11-29-79

SYSTEM NUMBER Reactor Coolant Piping L.P. PROCEDURE NUMBER 9PT-102

WELD REPAIR NUMBER N/A SEQ. NUMBER N/A F.C.P. NUMBER NCR # 481

INSPECTION LEVEL	MATERIAL INSPECTED	SURFACE CONDITION	APPLICABLE CODE
☐ ROOT ☐ FINAL ☐ PARTIAL ☐ REPAIR ☒ Weld Prep (Per NCR # 481)	☐ WELD ☒ BASE METAL TYPE S/S	☐ AS WELDED ☒ GROUND ☐ MACHINED	☐ ASME I ☒ ASME III ☐ ASME VIII ☐ B31.1 ☐ OTHER _____

PRE EXAM. CLEANING	PENTRANT APPLICATION	PRE DEVELOP CLEAN	DEVELOPER APPLICATION	POST EXAM. CLEANING
☐ SPRAY ☒ WIPE BATCH NO. 79H014 DRY TIME 5 min.	☒ SPRAY ☐ BRUSH BATCH NO. 78L097 DWELL TIME 10 min.	☒ CLOTH WIPE ☐ TOWEL WIPE ☒ SOLVENT WIPE BATCH NO. 79H014 DRY TIME 5 min	☐ DUST ☒ SPRAY BATCH NO. 78M023 DEV. TIME 10 min.	☐ FLUSH ☒ SOLVENT WIPE BATCH NO. 79H014

☒ ACCEPT ☐ REJECT TEMPERATURE 70° GAGE NUMBER CU12-252

COMMENTS: Lighting Acceptable

90007189

INSPECTOR Gary Brown

CERTIFIED LEVEL II

N/A = NOT APPLICABLE

SEQUENTIAL NUMBER № 030066

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

1. JOB NUMBER	2. UNIT NUMBER	3. DATE	4. ITEM NAME	5. ITEM NO.
CL 238	#2	8-13-79	FEEDWATER HEADERS	A-122-2012-55-1 A-123-2012-55-1

6. VENDOR MANUFACTURER	7. DISCOVERED DURING	8. REJECT TAG NUMBER	9. PROCEDURE NUMBER
Babcock & Wilcox	☐ RECEIVING ☐ TEST ☒ CONST.	525	FCP-45

10. SPECIFICATION NUMBER	11. DRAWING NUMBER	12. PRIOR REPORT OF NONCONFORMITY #
n/a	143023E, Rev. 12	n/a

13. DESCRIPTION OF NONCONFORMITY

The cutouts on the MK-130 support plates have been cut oversized. See Attached Chart.

14. REPORTED BY	15. VERIFIED BY	16. CORRECTIVE ACTION REQUIRED
J. Rheinhardt — NAME; 8-13-79 — DATE	A. C. Ashworth Sr. — NAME; 8-13-79 — DATE	☒ YES ☐ NO

17. REPORTABLE DEFICIENCY IN ACCORDANCE WITH 10 CFR 50.55 (e)

☐ YES ☒ NO — FIELD PROJECT ENGINEER — DATE 8-13-79

18. RECOMMENDED DISPOSITION: ☐ N/A ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☒ ACCEPT AS IS

19. TECHNICAL JUSTIFICATION/OR RECOMMENDED DISPOSITION INSTRUCTIONS

Accept as is.
Vendor to approve disposition.

FIELD PROJECT ENGINEER — DATE 8-23-79

20. ACTUAL DISPOSITION: ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☒ ACCEPT AS IS

21. DISPOSITION INSTRUCTIONS

See SPR 98
Accept as is

FIELD PROJECT ENGINEER — DATE 10-17-79

22. APPROVALS
B&W FQC — SIGNATURE — DATE 10-17-79 — OTHER — SIGNATURE — DATE
OWNER/AGENT — SIGNATURE — DATE 10/18/79 — OTHER — SIGNATURE — DATE

23. ANI REVIEW — SIGNATURE — DATE 10/31/79

24. DISPOSITION COMPLETED	25. DISPOSITION VERIFICATION	☒ ACCEPTABLE ☐ UNACCEPTABLE
NAME; 10-31-79 — DATE	A. C. Ashworth Sr. — NAME; 11-1-79 — DATE	REPORT OF NONCONFORMITY #

26. CORRECTIVE ACTION

All Superintendants will be instructed on the necessity of meeting drawing requirements.

90007190

V. N. Argumedo — FIELD PROJECT MANAGER — DATE 10/17/79

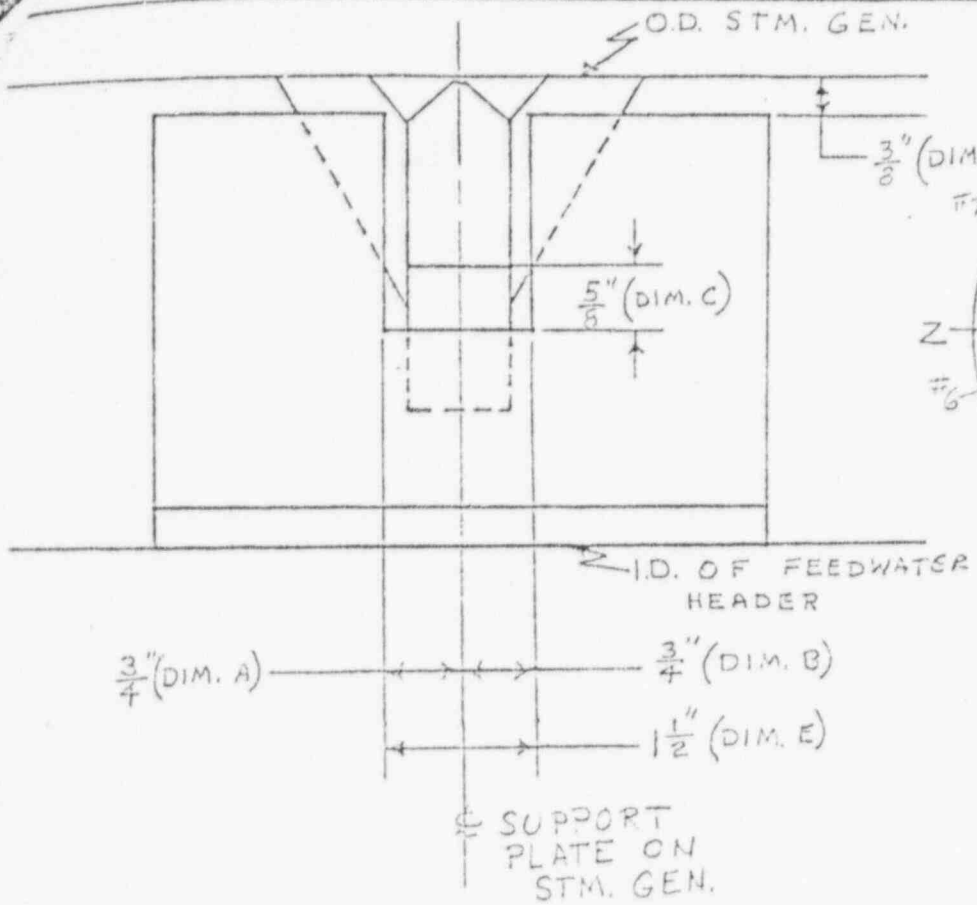
27. NONCONFORMITY CLOSED — FIELD QUALITY CONTROL SUPV. — DATE 11-1-79

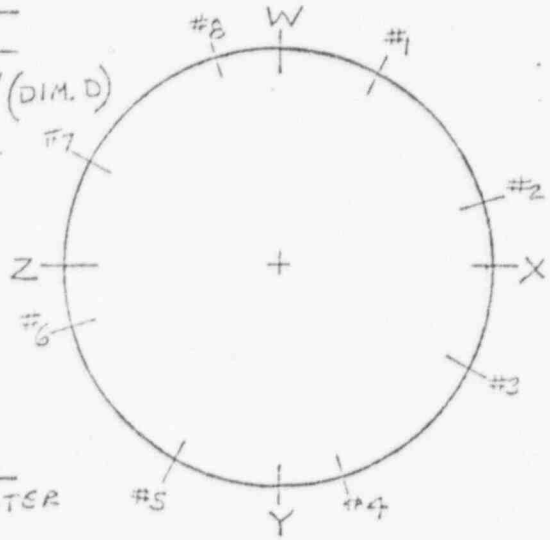
SEQUENTIAL NUMBER № 1646

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

NUMBER	UNIT NUMBER	DATE	REPORT OF NONCONFORMITY #
-238	2	8-13-79	1646





DIM. A, B, C & E
TOLERANCE = ± 1/16"
DIM. D = APPROX. DIM.

	DIM. A	DIM. B	DIM. C	DIM. D	DIM. E
1	13/16	7/8	11/16	1/2	1 11/16
2	13/16	13/16	5/8	5/8	1 5/8
3	13/16	1 1/16	11/16	3/4	1 7/8
4	3/4	3/4	5/8	11/16	1 1/2
5	7/8	25/32	9/16	1	1 21/32
6	1	13/16	5/8	1/2	1 13/16
7	13/16	15/16	9/16	3/8	1 3/4
8	7/8	3/4	5/8	3/4	1 5/8

OK 8-13-79 RCW

NCR #1646

ORIENTATION OF HEADERS ARE ACCEPTABLE.
CIRCLED DIM'S. ARE REJECTABLE.

NORTH STM. GEN.
FCP# 45
UNIT# 2
SEQ.# 130
DATE# 8-13-79
SIGNED# A.C. Ashworth

90007191

FDS-21091-5 (8-79)

PROBLEM REPORT	PRIORITY 1 ☐ 2 ☐ 3 ☐ 4 ☒ NONE ☐	BABCOCK & WILCOX
OWNER: Consumers Pwr Co.	ORIGINATOR: HAG DATE: 8-19-77	DOC ID: 13 MSS NO.: 12 SPR NO.: 98 REV. NO.: 0
SUPPLIER: B&W Mt. Vernon	PA. NO.: 620-0012-55	PART NO./TASK-GROUP-SEQ. NO.: 55 01 001
TITLE (maximum 30 characters): Feedwater Header		LEAD MANAGER:

DESCRIPTION OF PROBLEM:
Cutouts on MK 130 support plates cut oversize per attached chart.

B&W NCR # 1646

STATUS-ACTION TO DATE, INCLUDING PERSONS CONTACTED:
J. T. Frost Lynchburg

FURTHER ACTION RECOMMENDED BY SITE PERSONNEL:

RESOLUTION Accept support lugs in the as built condition. Current analysis performed by the SMA unit do not even account for any support from these lugs on the FW header. Future load increases on the FW header may cause these lugs to be accounted for in the analysis, and redesign or rework of these lugs may be required at that time.

90007192

☐ INFORMATION ONLY

PREPARED BY: [illegible] DATE: 10-11-79

PCR REQUIRED YES	PCR REQUIRED NO	POTENTIAL SAFETY CONCERN YES	POTENTIAL SAFETY CONCERN NO	RESOLUTION DOC. NO.
☐	☒	☐	☒	

REVIEWED BY: [illegible] for Legal [illegible] DATE:

APPROVED BY: [illegible] DATE: 10-15-79

SPR CLOSEOUT REPORT:

CLOSED OUT BY: DATE:

SHEET 1 of 3

BWCC 3.2.12-1

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

X

REPORT OF NONCONFORMITY

1. JOB NUMBER	2. UNIT NUMBER	3. DATE	4. ITEM NAME	5. ITEM NUMBER
CL 238	#2	8-14-79	REACTOR COOLANT PIPE	see below

6. VENDOR MANUFACTURER	7. DISCOVERED DURING	8. REJECT TAG NUMBER	9. PROCEDURE NUMBER
B&W Mt. Vernon	☐ RECEIVING ☐ TEST ☒ CONST.	301, 302, 303, 304, 305, 306, 307, 308	76, 84, 85, 86, 92, 99, 100, 101.

10. SPECIFICATION NUMBER	11. DRAWING NUMBER	12. PRIOR REPORT OF NONCONFORMITY#
9-HT-102, Rev. 6	150177E, Rev. 8	n/a

13. DESCRIPTION OF NONCONFORMITY

Violation of 1/8 inch maximum depth requirement for cavities of removed peened thermocouples as stated in 9-HT-102 paragraph 9.4. The attached sketches show the TC areas involved (circled items) for welds 4-1, 4-2, 4-3, 4-4, 5-1, 5-2, 5-3, and 5-4.

14. REPORTED BY	15. VERIFIED BY	16. CORRECTIVE ACTION REQUIRED
A. C. Ashworth, Sr. — NAME; A.C. Ashworth Sr. — 8-14-79 DATE	A. C. Ashworth, Sr. — NAME; A.C. Ashworth Sr. — 8-14-79 DATE	☒ YES ☐ NO

17. REPORTABLE DEFICIENCY IN ACCORDANCE WITH 10 CFR 50.55 (e)

☐ YES ☒ NO — H. H. Lien, FIELD PROJECT ENGINEER — 9-14-79 DATE

18. RECOMMENDED DISPOSITION: ☐ N/A ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☒ ACCEPT AS IS

19. TECHNICAL JUSTIFICATION/OR RECOMMENDED DISPOSITION INSTRUCTIONS

Accept as is.
Vendor to approve disposition.

H. H. Lien, FIELD PROJECT ENGINEER — 9-21-79 DATE

20. ACTUAL DISPOSITION: ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☒ ACCEPT AS IS

21. DISPOSITION INSTRUCTIONS

See SPR 103
All cavities were MT examined and found acceptable on referenced field construction procedures 76, 84, 85, 86, 92, 99, 100 & 101
Accept as is

H. H. Lien, FIELD PROJECT ENGINEER — 11-7-79 DATE

22. APPROVALS
B&W FQC — SIGNATURE — DATE 11-7-79 — OTHER — SIGNATURE — DATE
OWNER AGENT — SIGNATURE — DATE 11/8/79 — OTHER — SIGNATURE — DATE

23. ANI REVIEW — SIGNATURE — DATE 11/9/79

24. DISPOSITION COMPLETED — H. H. Lien — NAME — DATE 11-9-79

25. DISPOSITION VERIFICATION — NAME — DATE 11-9-79 — ☒ ACCEPTABLE ☐ UNACCEPTABLE — REPORT OF NONCONFORMITY

26. CORRECTIVE ACTION

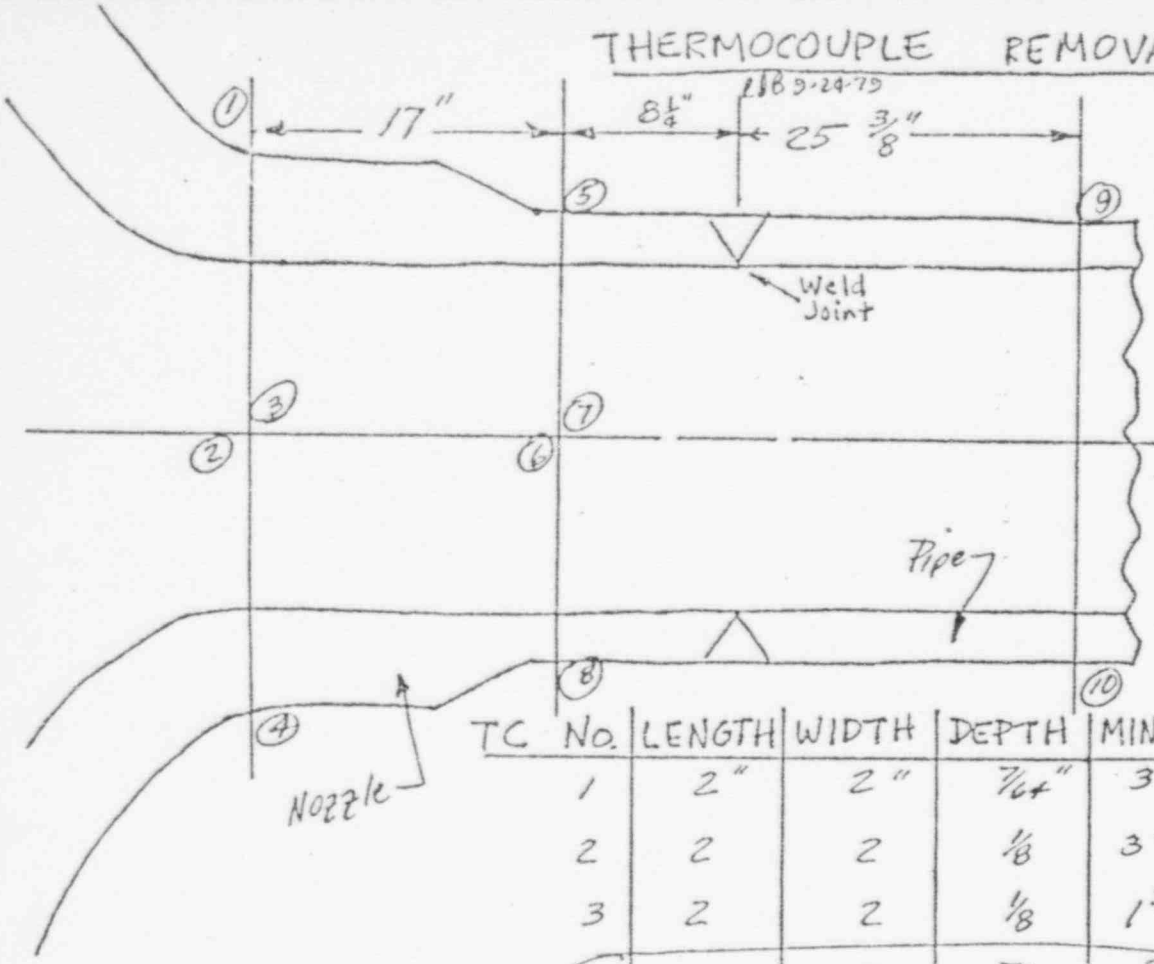
Field Construction Procedures have been revised to delete approximately 75% of the holes necessary for thermocouples by going to welded connections.
Superintendants will be advised as to the necessity of meeting the requirements set forth in the FCP's.

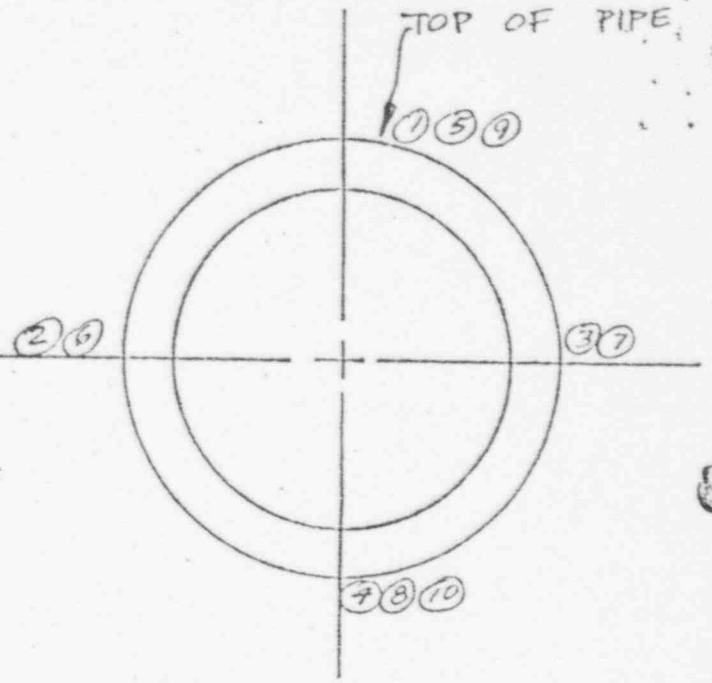
H. H. Lien, FIELD PROJECT MANAGER — 11-9-79 DATE

27. NONCONFORMITY CLOSED — FIELD QUALITY CONTROL SUPV. — 11-12-79 DATE — 90007193

SEQUENTIAL NUMBER № 1647

THERMOCOUPLE REMOVAL AREAS





TC No.	LENGTH	WIDTH	DEPTH	MIN. RAD.
1	2"	2"	7/64"	3"
2	2	2	1/8	3 3/4
3	2	2	1/8	1 3/4
4	2	2	7/32	3/4
5	2	2	1/8	2 1/4
6	1 1/2	1 1/2	3/32	2 1/4
7	2	1 3/4	7/64	2
8	2	2	1/8	3"
9	2	2	1/8	1 3/4
10	2	2	1/16	2 1/2

Note: All dimensions are within tolerance of applicable FCP.

WELD No. 4-1

UNIT No. 2

FCP No. 76

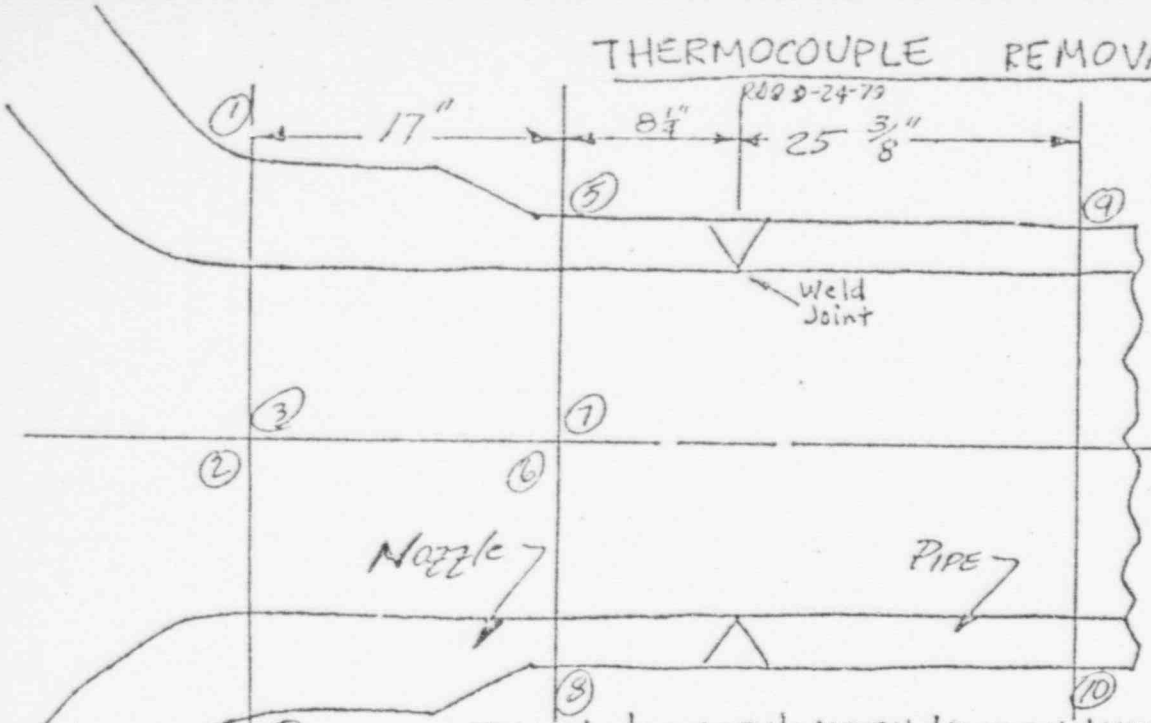
SEQ. No. 150

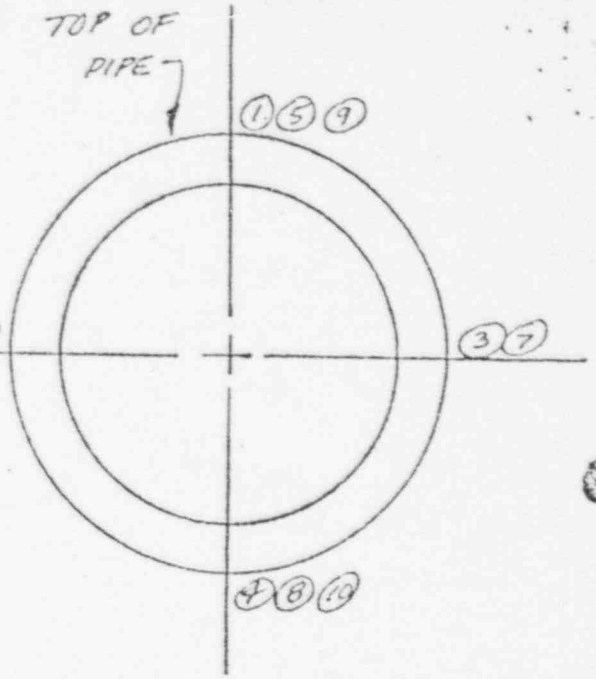
INSPECTOR [illegible]

DATE 8-8-79

9000719 4

THERMOCOUPLE REMOVAL AREAS





TC No.	LENGTH	WIDTH	DEPTH	MIN. RAD.
1	3 1/4	2 1/2	3/32	4 1/4
2	* 2 3/8	2 1/4	3/32	3
3	2 1/2	2	7/64	4
4	2 1/2	2	7/32	4
5	* * 3 1/2	3	9/64	3 1/4
6	2 1/4	2	1/8	3
7	2	1 1/2	3/32	3 1/4
8	2 1/2	2 1/4	5/64	3
9	3 1/2	2 1/4	7/64	4 1/4
10	2 1/4	1 1/2	1/8	2

* ~~TC Hole still present after grinding. More grinding necessary.~~ Complete 8-14-79 EF

* * ~~TC broken off and left in place. No grinding has been started.~~ Complete 8-10-79 EF

Note: All dimensions are within tolerance of applicable FCP.

WELD No. 4-2

UNIT No. 2

FCP No. 85

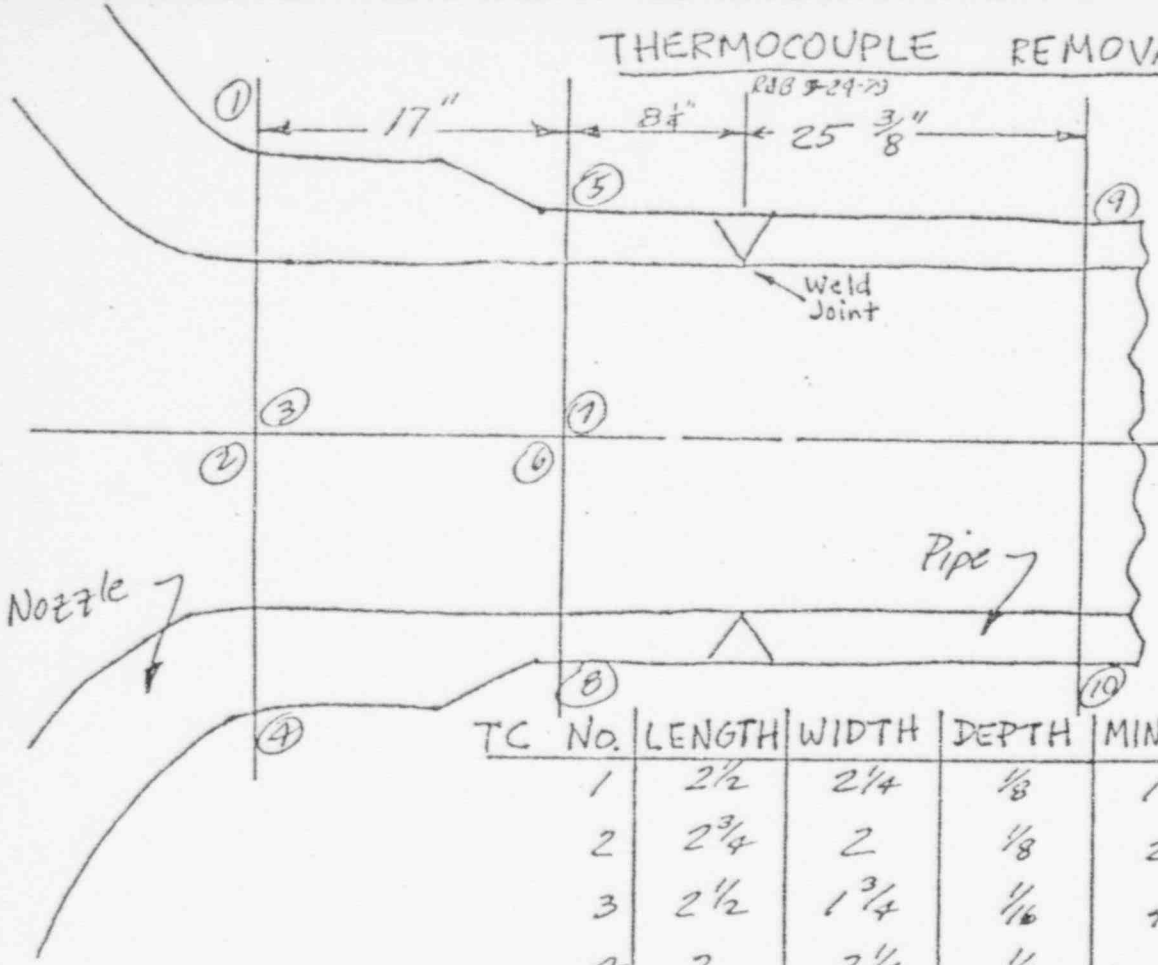
SEQ. No. 150

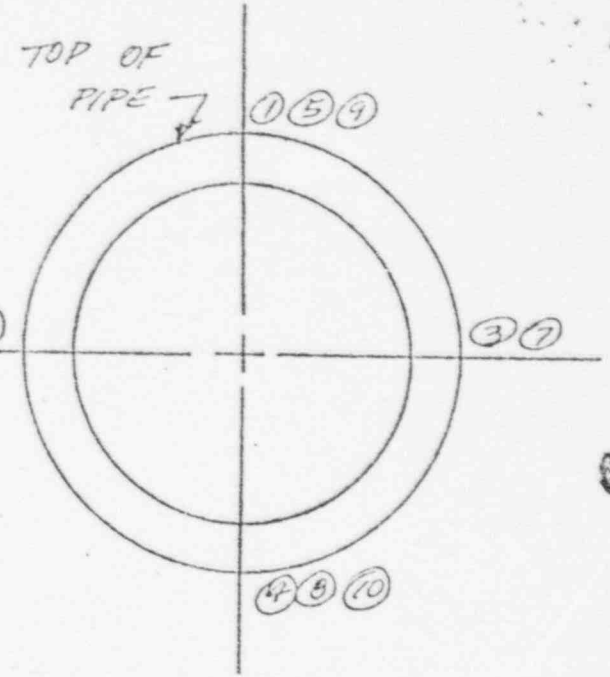
INSPECTOR R C Schwarth / S Teulbee

DATE 8-8-79

90007195

THERMOCOUPLE REMOVAL AREAS





TC No.	LENGTH	WIDTH	DEPTH	MIN. RAD.
1	2½	2¼	⅛	1½
2	2¾	2	⅛	2½
3	2½	1¾	1/16	4½
4	2	2¼	⅛	1¼
5	2⅜	2	5/32	1½
6	2¼	2	⅛	2¼
7	2¾	2	5/64	1¾
8	1¾	2⅛	⅛	1
9	2½	1⅝	7/64	2
10	2¼	1½	3/32	1¾

Note: All dimensions are within tolerance of applicable FCP.

90007196

WELD No. 4-3

UNIT No. 2

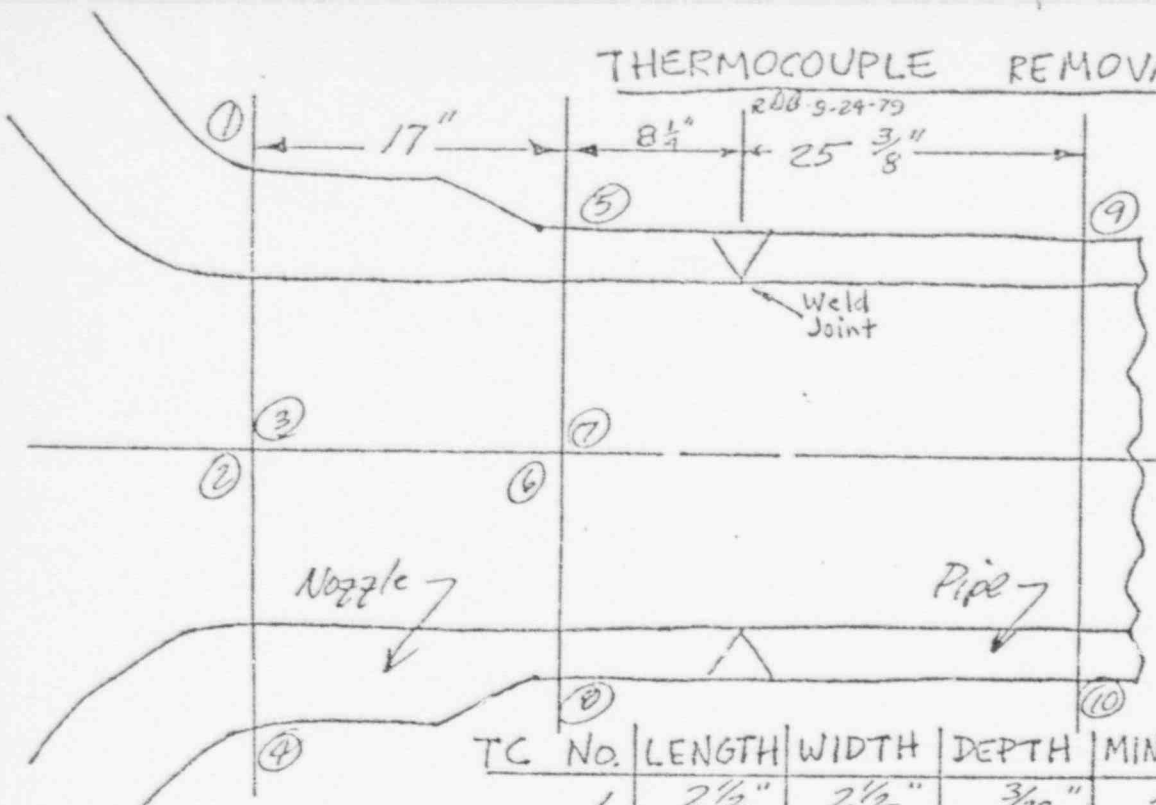
FCP No. 86

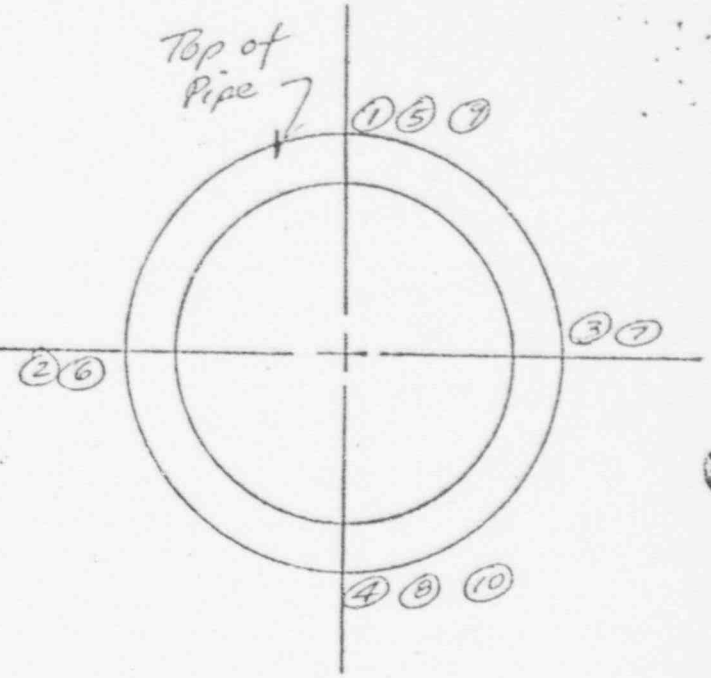
SEQ. No. 150

INSPECTOR R C Ashworth, SL Trullinger

DATE 8-8-79

THERMOCOUPLE REMOVAL AREAS





TC No.	LENGTH	WIDTH	DEPTH	MIN. RAD.
1	2 1/2"	2 1/2"	3/32"	2 3/4"
2	2 3/8	2 1/8	5/64	4
3	2 7/16	2 1/2	1/8	2
4	2	1 3/4	5/32	2
5	2 5/8	2	3/32	3
6	2 1/2	2	1/8	3
7	2 3/8	2 1/8	5/32	2
8	2 1/4	2	9/64	2
9	2 1/4	1 7/8	1/8	3
10	3	2	5/32	2 1/4

Note: Circled items in charts have depths greater than 1/8 inch.

Note: All dimensions are within tolerance of applicable FCP.

9000497

WELD No. 4-4

UNIT No. 2

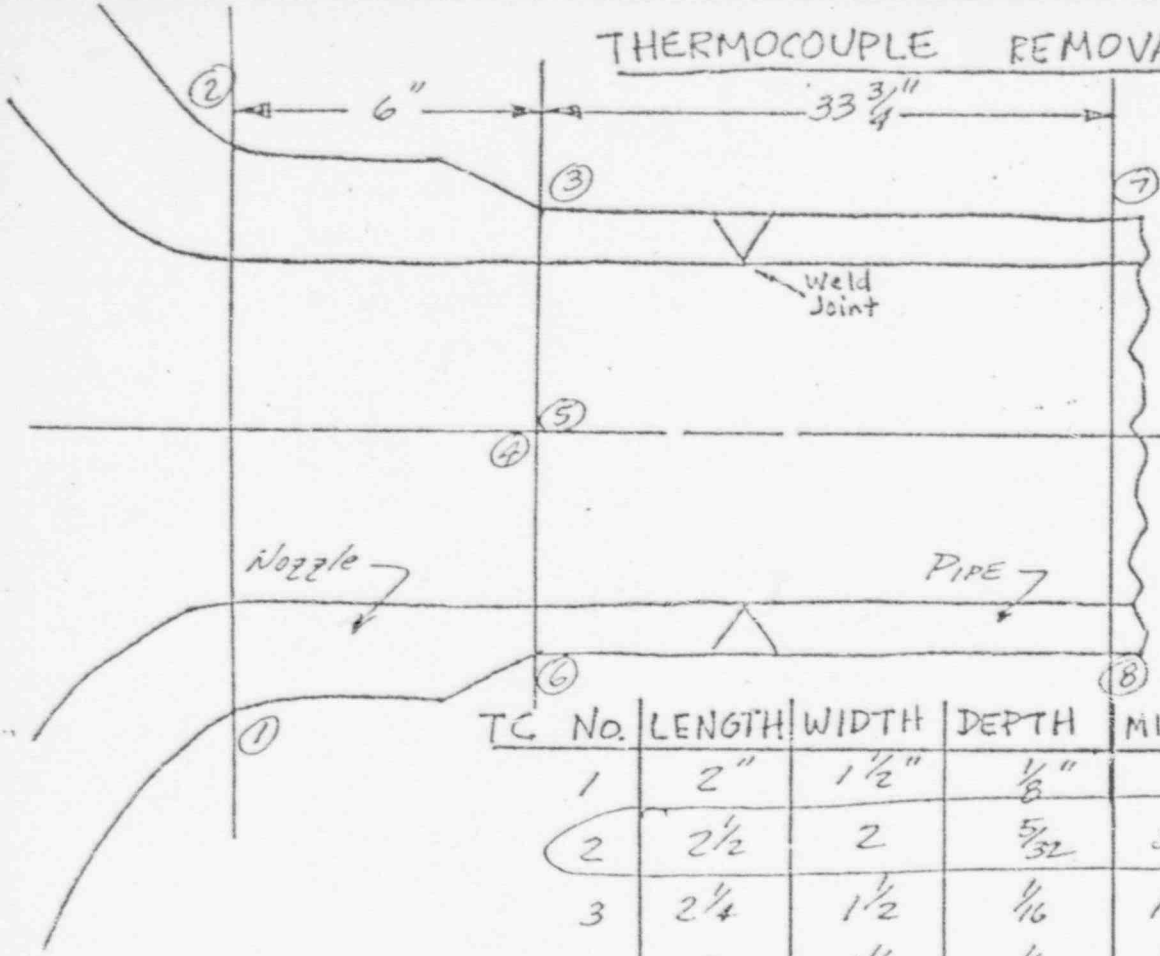
FCP No. 84

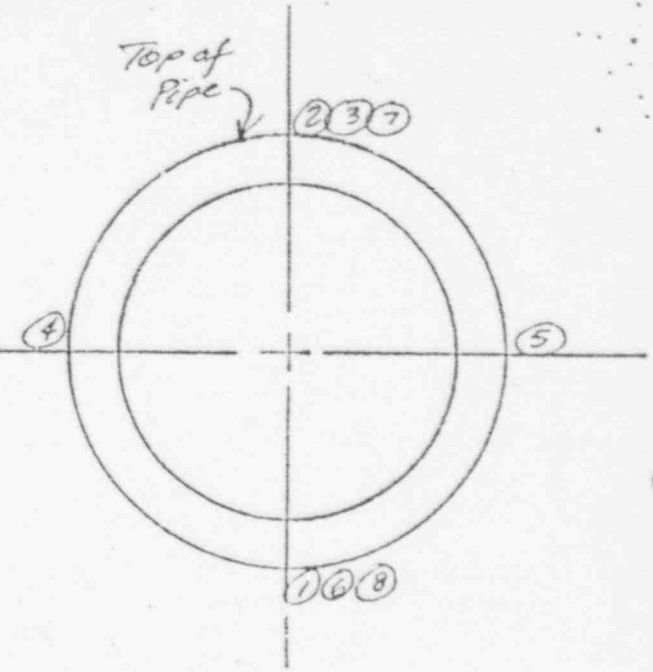
SEQ. No. 150

INSPECTOR W C Ashworth Jr. / L Tiulbu

DATE 8-8-79

THERMOCOUPLE REMOVAL AREAS





TC No.	LENGTH	WIDTH	DEPTH	MIN. RAD.
1	2"	1 1/2"	1/8"	1"
2	2 1/2	2	5/32	3 1/4
3	2 1/4	1 1/2	1/16	1 1/2
4	2	1 1/2	1/8	3/4
5	2 1/2	1 3/4	1/8	3/4
6	2	1 1/2	9/64	3/4
7	2	2	5/32	1 1/2
8	2	1 5/8	9/64	1 3/4

WELD No. 5-1

UNIT No. 2

FCP No. 92

SEQ. No. 150

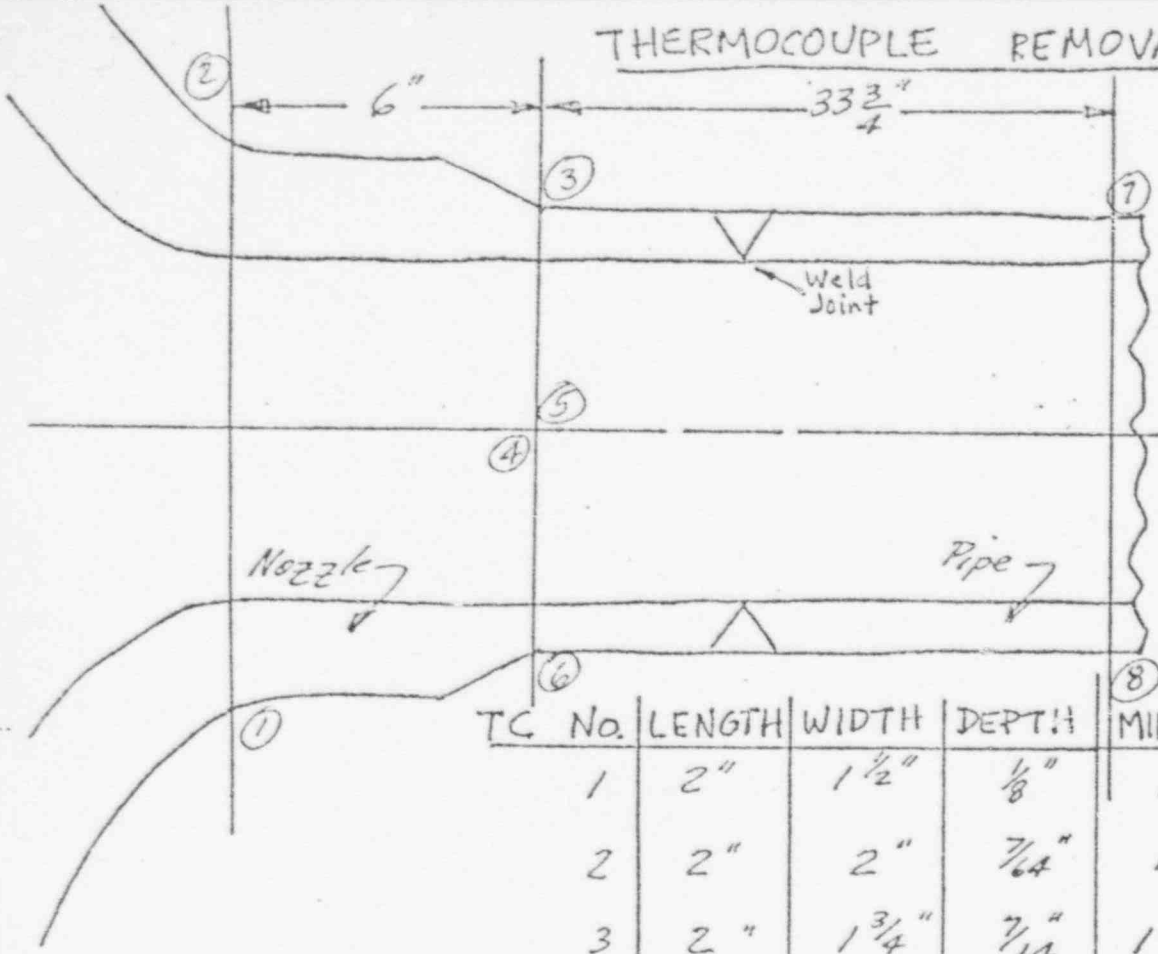
INSPECTOR R. L. Ashworth / SC Taulbee

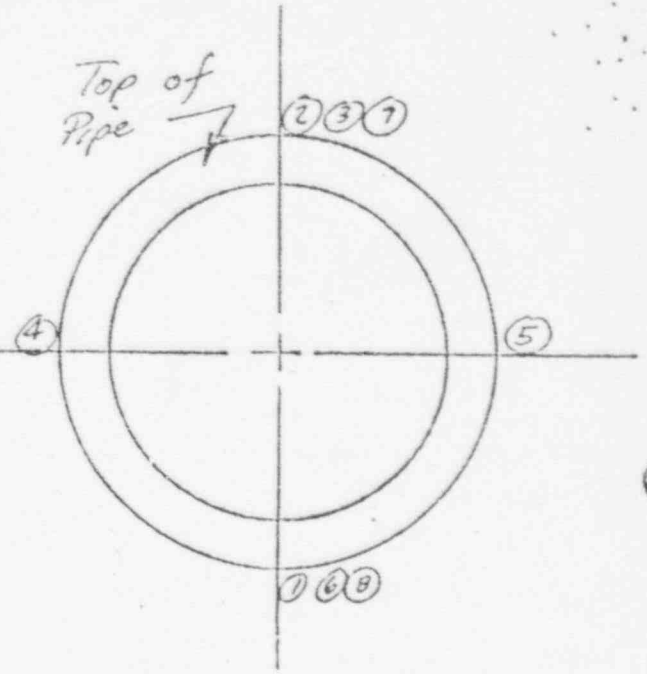
DATE 8-9-79

90007198

Note: All dimensions within tollerance of applicable FCP.

THERMOCOUPLE REMOVAL AREAS





TC No.	LENGTH	WIDTH	DEPTH	MIN. RAD.
1	2"	1 1/2"	1/8"	1"
2	2"	2"	7/64"	1"
3	2"	1 3/4"	7/64"	1 1/2"
4	1 3/4"	1 3/4"	7/64"	1"
5	2 1/4"	2"	1/8"	1 1/4"
6	2"	1 1/4"	9/64"	7/8"
7	2 3/4"	1 7/8"	1/8"	3"
8	1 1/2"	1 1/4"	7/64"	1 1/4"

WELD No. 5-2

UNIT No. 2

FCP No. 99

SEQ. No. 150

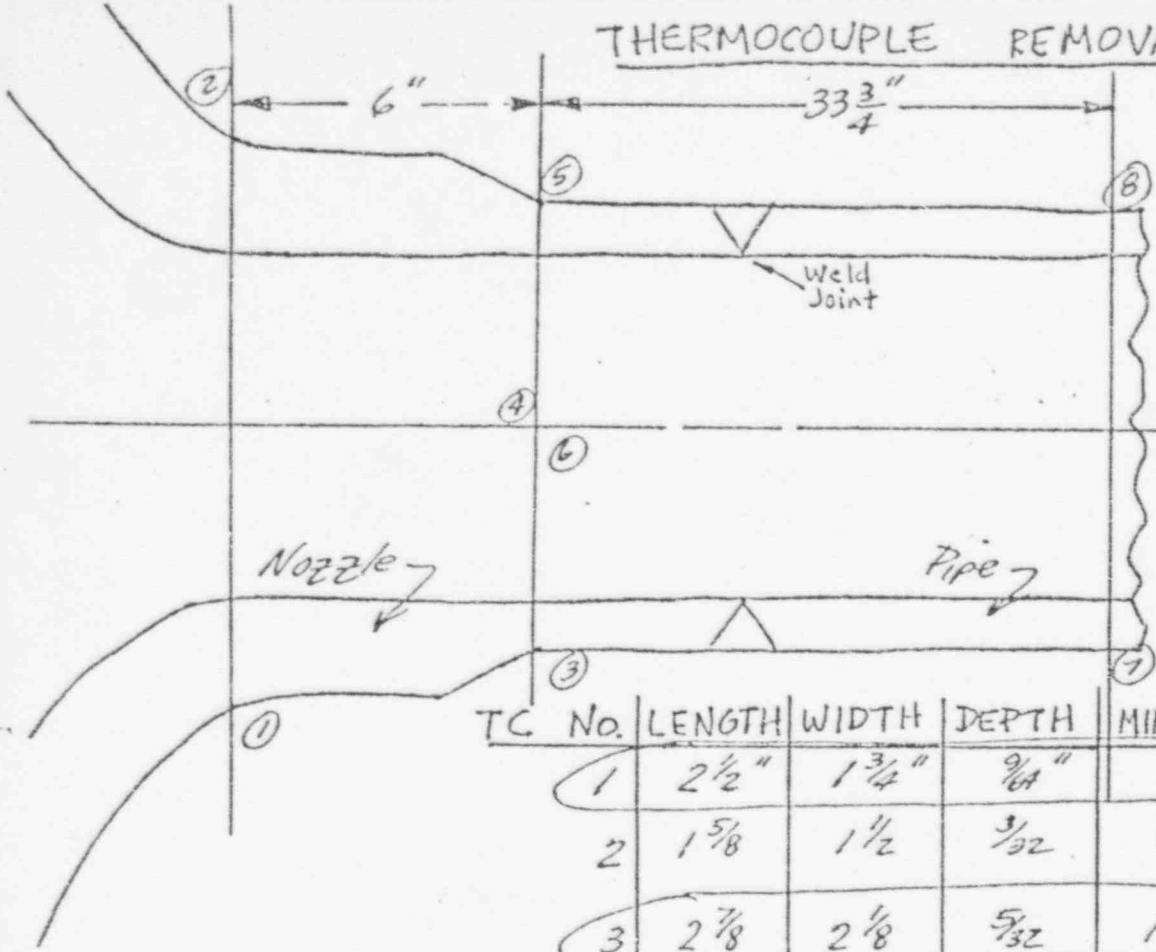
INSPECTOR A C Schmitt, SC Tarelhes

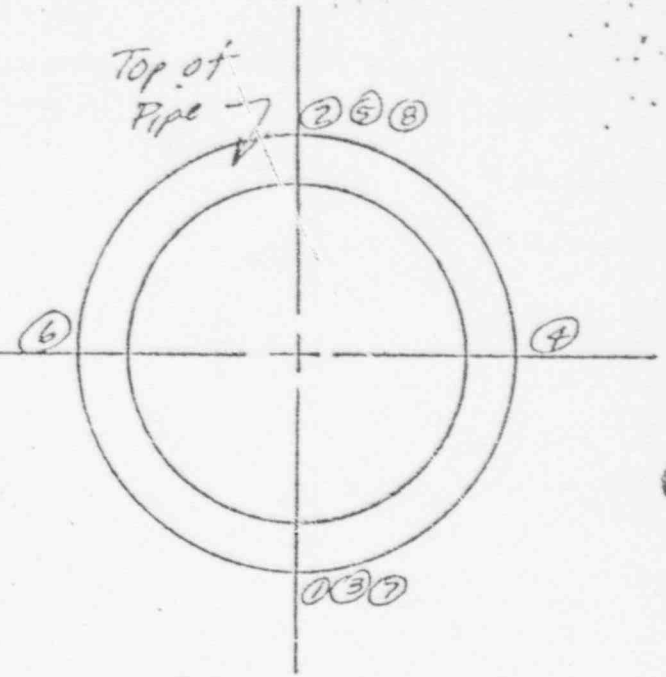
DATE 8-9-79

Note: All dimensions within tolerance of applicable FCP.

90007199

THERMOCOUPLE REMOVAL AREAS





TC No.	LENGTH	WIDTH	DEPTH	MIN. RAD.
1	2 1/2"	1 3/4"	9/64"	1 3/8"
2	1 5/8	1 1/2	3/32	2 1/4
3	2 7/8	2 1/8	5/32	1 1/2
4	2 1/2	2 1/4	9/64	1 1/4
5	1 1/2	1 1/4	9/64	1
6	2 3/8	1 13/16	7/64 ~~7/64~~ SCT	1 1/4
7	2 1/4	1 3/8	1/16	3
8	1 3/4	1 5/8	1/8	2

WELD No. 5-3

UNIT No. 2

FCP No. 100

SEQ. No. 150

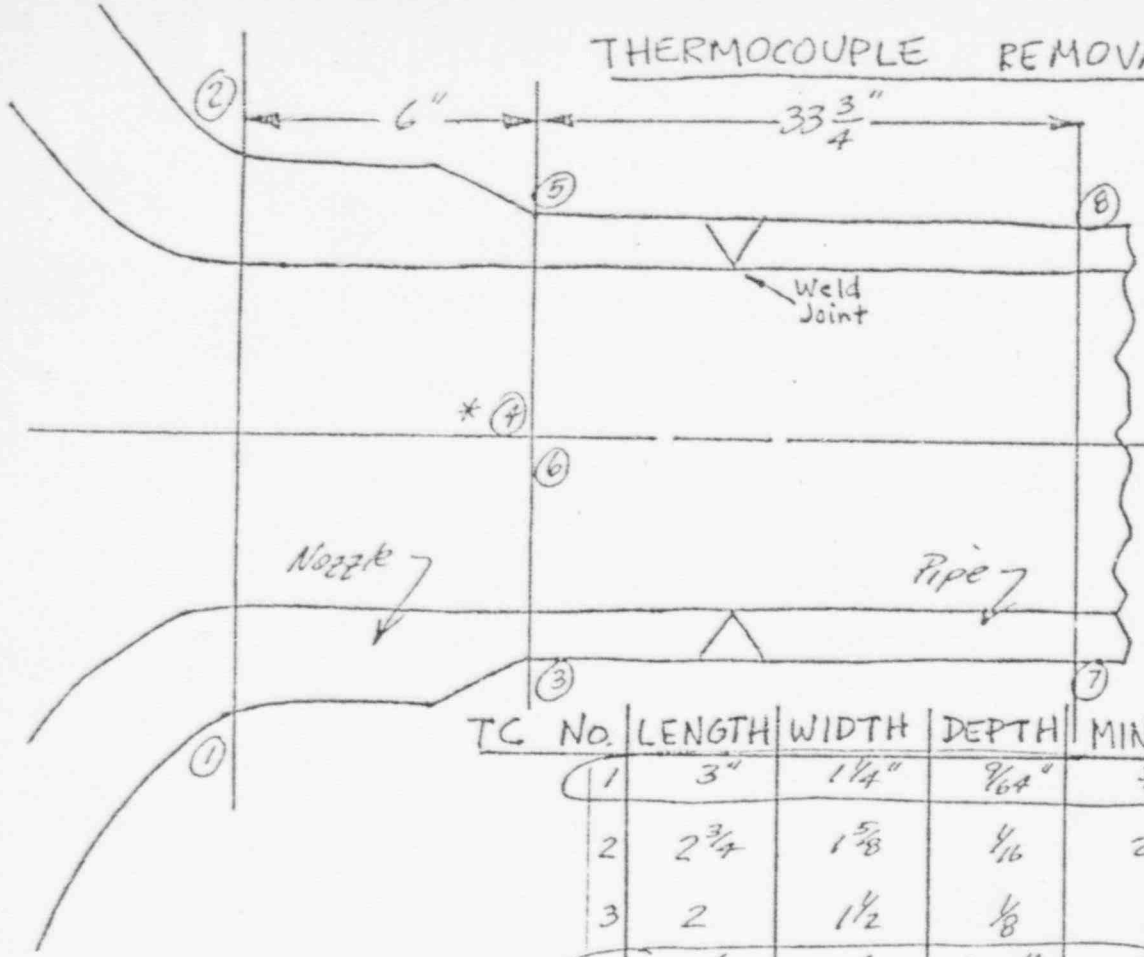
INSPECTOR R. C. Rabenstein, S. Taulbee

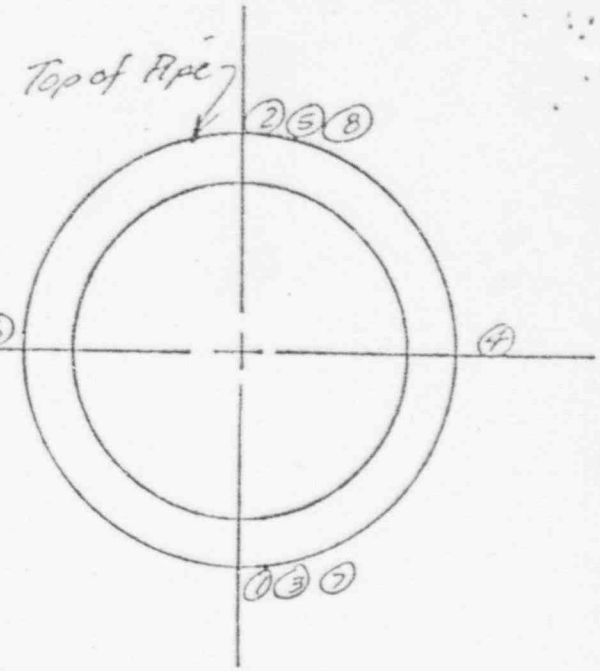
DATE 8-9-79

90007200

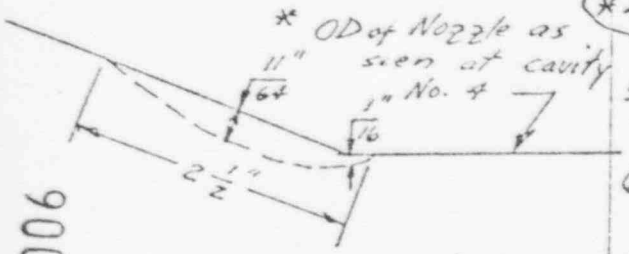
Note: All dimensions within tolerance of applicable FCP.

THERMOCOUPLE REMOVAL AREAS





TC No.	LENGTH	WIDTH	DEPTH	MIN. RAD.
1	3"	1 1/4"	9/64"	3/4"
2	2 3/4	1 5/8	1/16	2 1/2
3	2	1 1/2	1/8	1
* 4	2 1/2	1 1/2	1/16 11/64	3/4
5	2	1 1/2	1/8	1 1/4
6	2 1/4	1 5/8	1/8	1
7	1 3/4	1 1/2	1/8	1 1/2
8	1 5/8	1 3/8	1/8	1



* Note: Measurement of minimum wall thickness with respect to OD of pipe is misleading at this cavity. The majority of the cavity extends into the nozzle.

Note: All dimensions within tolerance of applicable FCP.

WELD Nr 5-4

UNIT No. 2

FCP No. 101

SEQ. No. 150

INSPECTOR R C Ashworth / S Taulbee

DATE 8-9-79

90007201

SITE PROBLEM REPORT	PRIORITY 1 ☐ 2 ☐ 3 ☒ 4 ☐ NONE ☐	BABCOCK & WILCOX
CUSTOMER: Consumers Power Co.	ORIGINATOR: M.A. Cushing — DATE: 8-29-79	DOC ID: 13 — NSS NO.: 12 — SPR NO.: 103 — REV. NO.: 0
SUPPLIER: B+W	PA. NO.: 620-002-50	PART NO./TASK-GROUP-SEQ. NO.: 50 01 001
TITLE (maximum 30 characters): Reactor Coolant Pipe		LEAD MANAGER: R.A. Torrow

PROBLEM IDENTIFICATION

DESCRIPTION OF PROBLEM:

Removed welded thermocouple washers. See attached NDR and details

Dwg NDR #2447

STATUS-ACTION TO DATE, INCLUDING PERSONS CONTACTED:

FURTHER ACTION RECOMMENDED BY SITE PERSONNEL:

Accept "As Is", Vendor to approve disposition

RESOLUTION

RESOLUTION

A structural evaluation of the nonconforming holes was made and the areas in question were found to be acceptable as is. If these areas have not already been MT inspected in their final condition, MT inspect per Para. 9.4 of Procedure 9-HT-102, Rev 6, which is referenced in the "Report of Nonconformity" Report any indications to B&W & NPGD prior to repair

☐ INFORMATION ONLY

PREPARED BY: CEB/KEB — DATE: 10/4/79

PCA REQUIRED YES	PCA REQUIRED NO	POTENTIAL SAFETY CONCERN YES	POTENTIAL SAFETY CONCERN NO	RESOLUTION DOC. NO.
☐	☒	☐	☒	—

REVIEWED BY: W.D. Dallmann for LGW — DATE: 10/4/79

APPROVED BY: [illegible] — DATE: 11-2-79

CLOSEOUT

SPR CLOSEOUT REPORT:

CLOSED OUT BY: — DATE:

SHEET ____ OF ____

90007202

BWCC, 31812-1

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

1. JOB NUMBER	2. UNIT NUMBER	3. DATE	4. ITEM NAME	5. ITEM NUMBER
CL-238	2	10-16-79	Make-up Purification	404-2-002

6. VENDOR MANUFACTURER	7. DISCOVERED DURING	8. REJECT TAG NUMBER	9. PROCEDURE NUMBER
Darling Valve Company	☐ RECEIVING ☐ TEST ☒ CONST.	454	FCP 42

10. SPECIFICATION NUMBER	11. DRAWING NUMBER	12. PRIOR REPORT OF NONCONFORMITY#
Dwg. 604 Sh. 2	Dwg. 604 Sh. 2	N/A

13. DESCRIPTION OF NONCONFORMITY

Valve 2½"-ACA-SCK-LPV 404-2-002 in 2CCA-11 will not open.
Valve is welded to pipe on inlet end only.

14. REPORTED BY	15. VERIFIED BY	16. CORRECTIVE ACTION REQUIRED
W A Wilson — NAME — 10-16-79 DATE	R W Shope — NAME — 10-16-79 DATE	☐ YES ☒ NO

17. REPORTABLE DEFICIENCY IN ACCORDANCE WITH 10 CFR 50.55 (e)

☐ YES ☒ NO — H. H. Lian — FIELD PROJECT ENGINEER — 10-16-79 DATE

18. RECOMMENDED DISPOSITION: ☐ N/A ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

19. TECHNICAL JUSTIFICATION/OR RECOMMENDED DISPOSITION INSTRUCTIONS

Owner/Agent to supply disposition

H. H. Lian — FIELD PROJECT ENGINEER — 10-17-79 DATE

20. ACTUAL DISPOSITION: ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☒ ACCEPT AS IS

21. DISPOSITION INSTRUCTIONS See SPR 201

This condition is not a nonconformance.
QC to clear NCR.

H. H. Lian — FIELD PROJECT ENGINEER — 11-2-79 DATE

22. APPROVALS

B&W FQC: R W Shope — SIGNATURE — 11-2-79 DATE — OTHER: SIGNATURE — DATE

OWNER/AGENT: R E Whitaker — SIGNATURE — 11/1/79 DATE — OTHER: SIGNATURE — DATE

23. ANI REVIEW: S M Rathbun — SIGNATURE — 11/9/79 DATE

24. DISPOSITION COMPLETED	25. DISPOSITION VERIFICATION	☒ ACCEPTABLE ☐ UNACCEPTABLE
H. H. Lian — NAME — 11-9-79 DATE	W A Wilson — NAME — 11-9-79 DATE	REPORT OF NONCONFORMITY

25. CORRECTIVE ACTION

90007203

FIELD PROJECT MANAGER — DATE

27. NONCONFORMITY CLOSED

R W Shope — FIELD QUALITY CONTROL SUPV. — 11-12-79 DATE

SEQUENTIAL NUMBER № 1675

PROJECT NO. 7220-M-1A S/C NO. CL-238

Q-Related NO. ☐ Date 10-15-79

RFI 201

REF. DWG. OR SPEC.	SHEET	REV.	TITLE
604 (FCP #42)	2	4/F2	Unit #2 Make-up and purification system 2½"-2CCA-11

PREPARED BY: K.J. Vogel K.J. Vogel

RESPONSE REQUESTED BY DATE 10-24-79

EXISTING CONDITION:

See NCR #1675

Valve 2½"-ACA-SCK-LPV 404-2-002 in 2CCA-11 will not open.
Valve is welded to pipe on inlet end only.

REQUESTED INFORMATION:

Is it acceptable to continue installation of this valve?

RESPONSE:

Yes the installation of this value can continue. The stop check value is designed to open only under pressure & will not open under mechanical means. Therefore this is not a nonconformance. For further information see value manual.

90007204

Reviewed by: D. Shoots 11/1/79 Date Response Prepared by: Ron Dunlap

Civil N/A

Bechtel Approval: AAG

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

1. JOB NUMBER	2. UNIT NUMBER	3. DATE	4. ITEM NAME	5. ITEM NUMBER
CL-238	2	10-18-79	Steam Generator	2E51B

6. VENDOR/MANUFACTURER	7. DISCOVERED DURING	8. REJECT TAG NUMBER	9. PROCEDURE NUMBER
B&W Mt. Vernon	☐ RECEIVING ☒ TEST ☐ CONST.	327	FCP 142

10. SPECIFICATION NUMBER	11. DRAWING NUMBER	12. PRIOR REPORT OF NONCONFORMITY#
	1100540E Rev. 0	N/A

13. DESCRIPTION OF NONCONFORMITY

Spotface on #15 TSP has been machined beyond tolerance.
The correct dimension is 10½" ± 1/8" The actual dimension is 10 13/16".

14. REPORTED BY		15. VERIFIED BY		16. CORRECTIVE ACTION REQUIRED
R Lane for J. Jones	10-18-79	R W Shope	10-18-79	☒ YES ☐ NO
NAME	DATE	NAME	DATE	

17. REPORTABLE DEFICIENCY IN ACCORDANCE WITH 10 CFR 50.55 (e)

☐ YES ☒ NO — H. A. Linn, FIELD PROJECT ENGINEER — 10-18-79 DATE

18. RECOMMENDED DISPOSITION: ☐ N/A ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☒ ACCEPT AS IS

19. TECHNICAL JUSTIFICATION/OR RECOMMENDED DISPOSITION INSTRUCTIONS

Recommend to accept as is
Vendor to approve disposition

H. A. Linn, FIELD PROJECT ENGINEER — 10-29-79 DATE

20. ACTUAL DISPOSITION: ☒ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

21. DISPOSITION INSTRUCTIONS See SPR 123

Verify minimum thickness is 6 3/8" and accept as is, if thickness is less than 6 3/8".
Then map and transmit information to NPGD for disposition.

H. A. Linn, FIELD PROJECT ENGINEER — 11-7-79 DATE

22. APPROVALS

	SIGNATURE	DATE		SIGNATURE	DATE
B&W FQC	R A Hume	11-8-79	OTHER		
OWNER/AGENT	R. E. Hutchison	11/9/79	OTHER		

23. ANI REVIEW — SIGNATURE — 11/12/79 DATE

24. DISPOSITION COMPLETED — NAME — 11-13-79 DATE

25. DISPOSITION VERIFICATION — NAME — 11-13-79 DATE — ☒ ACCEPTABLE ☐ UNACCEPTABLE — REPORT OF NONCONFORMITY #

25. CORRECTIVE ACTION

Superintendants will be advised as to the necessity of meeting the drawing requirements as set forth in the FCP.

90007205

V. N. Dynahar, FIELD PROJECT MANAGER — 11/8/79 DATE

27. NONCONFORMITY CLOSED — R W Shope, FIELD QUALITY CONTROL SUPV. — 11-13-79 DATE

SEQUENTIAL NUMBER № 1678

PDS-21091-G (8-79)

TO SITE PROBLEM REPORT	PRIORITY 1 ☐ 2 ☐ 3 ☒ 4 ☐ NONE ☐	BABCOCK & WILCOX
CUSTOMER: Carolina Power & Co.	ORIGINATOR: M. A. Gustlung — DATE: 10/19/79	DOC ID: 13 — NSS NO.: 0012 — SPR NO.: 123 — REV. NO.: 0
SUPPLIER: B&W — Mt. V.	PA. NO.: 440.0012-SE	PART NO./TASK-GROUP-SEQ. NO.: SE. 01. 004
TITLE (MAXIMUM 30 CHARACTERS): Steam Generator		LEAD MANAGER: G F Glei

PROBLEM IDENTIFICATION

DESCRIPTION OF PROBLEM:

Spotface At #15 TSP Is Machined To 10 13/16" Ø.
Drawing 1100540E-0 Specifies 10 1/2" ± 1/8" Ø.
B&W NCR #1678

STATUS-ACTION TO DATE, INCLUDING PERSONS CONTACTED:

John Frost — Lynch Burg

FURTHER ACTION RECOMMENDED BY SITE PERSONNEL:

Accept As Is.

RESOLUTION

RESOLUTION: Accept "as is" if the min. thickness as shown on drawing 1100540E0 is greater than or equal to 6 3/8". If the actual thickness is less than 6 3/8" then report actual and resubmit this SPR as Rev. 1. When the min. thickness is 6 3/8 or greater with the 10 13/16 DIA. spotface, reinforcement requirements will still be meet.

90007206

☐ INFORMATION ONLY

PREPARED BY:	DATE
A.F. Glei	10-29-79
REVIEWED BY:	DATE
W.A. Richmond	10/29/79
APPROVED BY:	DATE
C.W. Hadinger	10-30-79

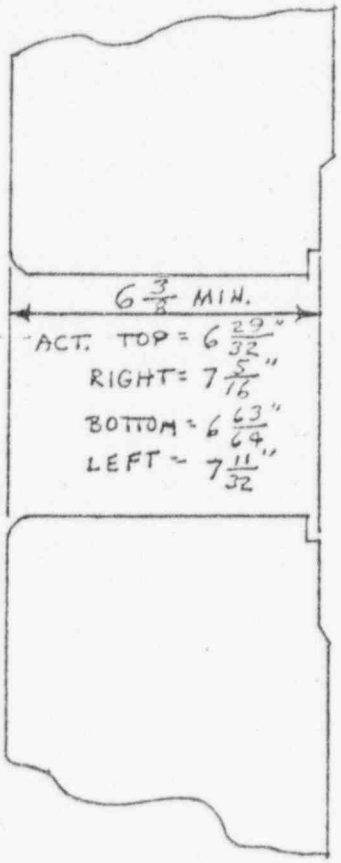
FLA REQUIRED YES	FLA REQUIRED NO	POTENTIAL SAFETY CONCERN YES	POTENTIAL SAFETY CONCERN NO	RESOLUTION DOC. NO.
☐	☒	☐	☒	

SPR CLOSEOUT REPORT:

CLOSED OUT BY: DATE

F.C.P 142
2E51B
REJECT TAG #32
N.C.R #1678

SPOT FACE ON #15 F.
ACTUAL DIMENSION IS
$10\frac{13}{16}$"



90007.207

BWCI 31812-1

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

1. JOB NUMBER	2. UNIT NUMBER	3. DATE	4. ITEM NAME	5. ITEM NUMBER
CL-238	Containment #1	10-19-79	Spool Sub Assembly	1CCA-013-603-01-02 1CCA-014-603-01-03

6. VENDOR MANUFACTURER	7. DISCOVERED DURING	8. REJECT TAG NUMBER	9. PROCEDURE NUMBER
ITT Grinnell	☒ RECEIVING ☐ TEST ☐ CONST.	330 & 331	FCP 20 9QPP 108

10. SPECIFICATION NUMBER	11. DRAWING NUMBER	12. PRIOR REPORT OF NONCONFORMITY?
N/A	M603 Sheet 1	None

13. DESCRIPTION OF NONCONFORMITY

No Documentation is available for review to support the above mentioned spool subassemblies.

14. REPORTED BY	15. VERIFIED BY	16. CORRECTIVE ACTION REQUIRED
H Reinhardt — NAME — 10-19-79 DATE	W A Willman — NAME — 10-19-79 DATE	☐ YES ☒ NO

17. REPORTABLE DEFICIENCY IN ACCORDANCE WITH 10 CFR 50.55 (e)

☐ YES ☒ NO — W. A. Linn — FIELD PROJECT ENGINEER — 10-19-79 DATE

18. RECOMMENDED DISPOSITION: ☒ N/A ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

19. TECHNICAL JUSTIFICATION/OR RECOMMENDED DISPOSITION INSTRUCTIONS

N/A

W. A. Linn — FIELD PROJECT ENGINEER — 10-30-79 DATE

20. ACTUAL DISPOSITION: ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

21. DISPOSITION INSTRUCTIONS

Vendor to supply documentation.
QC to review documentation & receipt inspect to 9-QPP-108

W. A. Linn — FIELD PROJECT ENGINEER — 10-30-79 DATE

22. APPROVALS

B&W FQC: R W Hope — SIGNATURE — 10-30-79 DATE — OTHER: SIGNATURE — DATE

OWNER/AGENT: R E Whitaker — SIGNATURE — 11/12/79 DATE — OTHER: SIGNATURE — DATE

23. ANI REVIEW: S N Rathbun — SIGNATURE — 11/14/79 DATE

24. DISPOSITION COMPLETED: H Reinhardt — NAME — 11-28-79 DATE

25. DISPOSITION VERIFICATION: R W Hope — NAME — 11-28-79 DATE — ☒ ACCEPTABLE ☐ UNACCEPTABLE — REPORT OF NONCONFORMITY #

26. CORRECTIVE ACTION

90007208

FIELD PROJECT MANAGER — DATE

27. NONCONFORMITY CLOSED

R W Hope — FIELD QUALITY CONTROL SUPV. — 11-28-79 DATE

SEQUENTIAL NUMBER № 1680

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

1. JOB NUMBER	2. UNIT NUMBER	3. DATE	4. ITEM NAME	5. ITEM NUMBER
CL-238	Unit #1	10-30-79	Heat Exchanger	691-N-0046

6. VENDOR MANUFACTURER	7. DISCOVERED DURING	8. REJECT TAG NUMBER	9. PROCEDURE NUMBER
Byron-Jackson	☒ RECEIVING ☐ TEST ☐ CONST.	#336	FCP #67

10. SPECIFICATION NUMBER	11. DRAWING NUMBER	12. PRIOR REPORT OF NONCONFORMITY?
FS III	1F 7623 Rev. K	N/A

13. DESCRIPTION OF NONCONFORMITY

Heat Exchange assembly has five areas that have raised metal due apparently to incomplete machining.
See attached Drawing.

14. REPORTED BY		15. VERIFIED BY		16. CORRECTIVE ACTION REQUIRED
R Hoge for R Brown	10-30-79	R Hoge	10-30-79	☐ YES ☒ NO
NAME	DATE	NAME	DATE	

17. REPORTABLE DEFICIENCY IN ACCORDANCE WITH 10 CFR 50.55 (e)

☐ YES ☒ NO — W. H. Lian, FIELD PROJECT ENGINEER — 10-30-79 DATE

18. RECOMMENDED DISPOSITION: ☒ N/A ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

19. TECHNICAL JUSTIFICATION OR RECOMMENDED DISPOSITION INSTRUCTIONS

Vendor to supply disposition.

W. H. Lian, FIELD PROJECT ENGINEER — 10-7-79 DATE

20. ACTUAL DISPOSITION: ☐ REWORK ☐ REPAIR ☐ REPLACE ☐ RETURN ☐ ACCEPT AS IS

21. DISPOSITION INSTRUCTIONS See SPR 76

Grind and handress the five areas only to blend smoothly with the surrounding surfaces.

W. H. Lian, FIELD PROJECT ENGINEER — 11-2-79 DATE

22. APPROVALS

	SIGNATURE	DATE		SIGNATURE	DATE
B&W FQC	R W Hoge	11-8-79	OTHER		
OWNER/AGENT	R E Whitaker	11/12/79	OTHER		

23. ANI REVIEW — J N Rattstrom — 11/12/79 (SIGNATURE, DATE)

24. DISPOSITION COMPLETED — A C Schmoll — 11-13-79 (NAME, DATE)

25. DISPOSITION VERIFICATION — A C Schmoll — 11-13-79 (NAME, DATE) ☒ ACCEPTABLE ☐ UNACCEPTABLE REPORT OF NONCONFORMITY

26. CORRECTIVE ACTION

90007209

FIELD PROJECT MANAGER — DATE

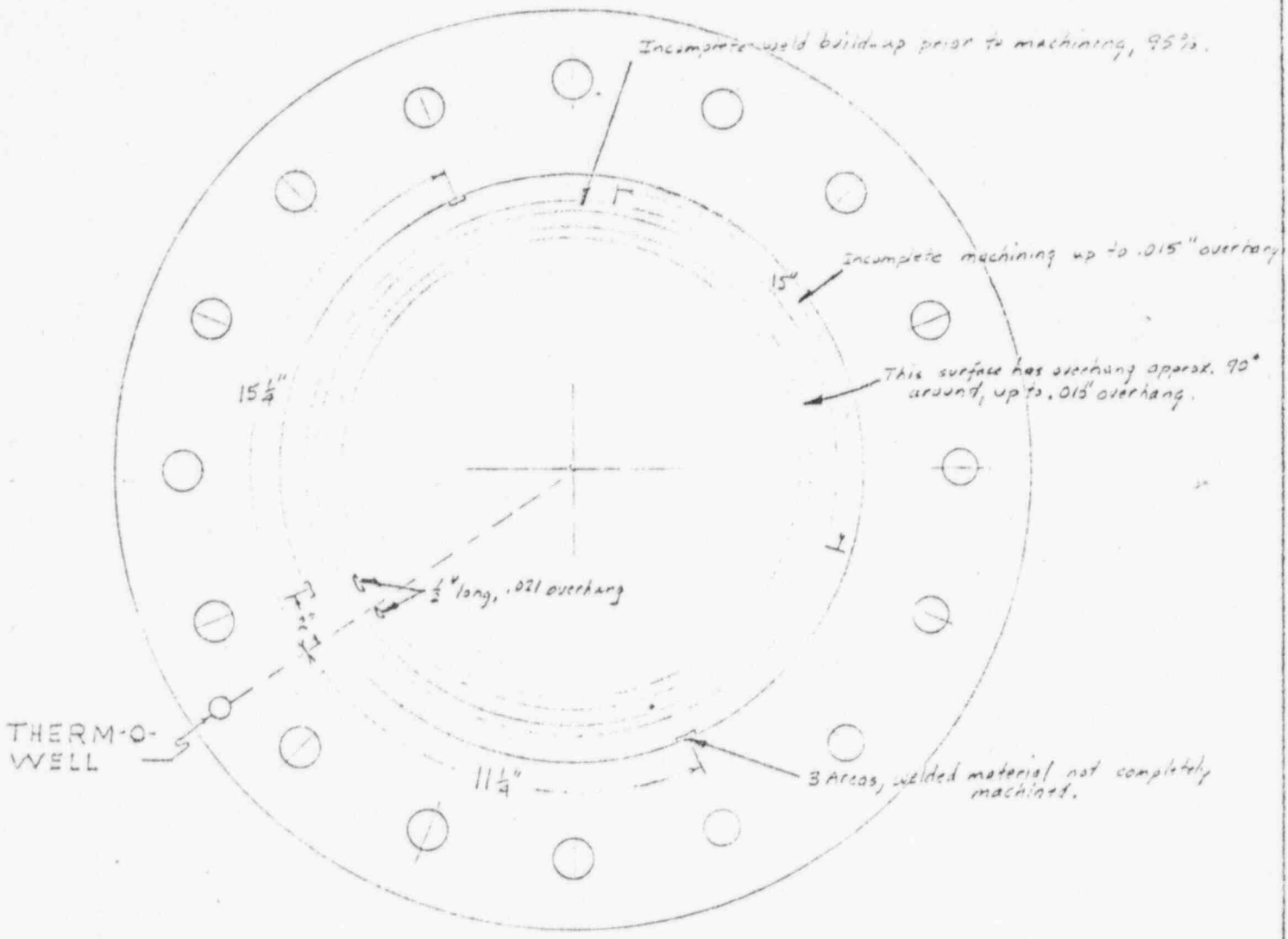
27. NONCONFORMITY CLOSED — R W Hoge, FIELD QUALITY CONTROL SUPV. — 11-13-79 DATE

SEQUENTIAL NUMBER № 1684

BABCOCK & WILCOX
B&W CONSTRUCTION COMPANY

REPORT OF NONCONFORMITY

JOB NUMBER	UNIT NUMBER	DATE	REPORT OF NONCONFORMITY #
CL 238	UNIT #1	10-30-79	#1684



HEAT EXCHANGE Assy.
SN 0046
RS 151834

90007210

SITE PROBLEM REPORT	PRIORITY 1 ☐ 2 ☐ 3 ☑ 4 ☐ NONE ☐	BABCOCK & WILCOX
CUSTOMER: Consumers Pwr. Co.	ORIGINATOR: H.A. Guetling DATE: 11/1/79	DOC ID: 10 NSS NO.: 13 SPR NO.: 76 REV. NO.: 0
SUPPLIER: Byron-Jackson	PA. NO.: 620-0013-42	PART NO./TASK-GROUP-SEQ. NO.: 42 40 001
TITLE (maximum 30 characters): RCP Heat Exchanger		LEAD TECHNICIAN: H.K. Kennedy

IDENTIFICATION

DESCRIPTION OF PROBLEM:

Heat Exchanger Assy. has five areas with raised metal apparently due to incomplete machining.

B&W NCR 1634

PROBLEM

STATUS-ACTION TO DATE, INCLUDING PERSONS CONTACTED:

J.T. Front, NPCD

FURTHER ACTION RECOMMENDED BY SITE PERSONNEL:

Using a small grinder, blend five areas with surrounding surfaces. Vendor to concur.

90007211

RESOLUTION

RESOLUTION

Grind and/or hand dress (with stone) the five areas of raised metal to blend smoothly with the surrounding surfaces.

Before starting this rework, obtain B-5 approval to accept the Deviation from CPC/Vendor for this rework/repair.

☐ INFORMATION ONLY

PCR REQUIRED YES	PCR REQUIRED NO	POTENTIAL SAFETY CONCERN YES	POTENTIAL SAFETY CONCERN NO	RESOLUTION DOC. NO.
☐	☑	☐	☑	N/A

PREPARED BY: [illegible] DATE: 11-2-79

REVIEWED BY: [illegible] DATE: [illegible]

APPROVED BY: [illegible] DATE: 11-2-79

CONCURRENCE

B&W CONCURR REPORT:

CLOSED OUT BY: DATE:

SHEET ___ OF ___

BABCOCK & WILCOX

ISI NCR'S

None for the month of

November, 1979.

90007212

Start-Up Systems: Indeterminate

Consumers Power Company

NONCONFORMANCE REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

6. PROJECT NAME: Midland Nuclear Plant	7. NONCONFORMING PART NO: N/A	8. NONCONFORMING PART NAME: FIR & Monitoring/Testing Procedure for fines	1. NCR SERIAL NO: M-01-79-128
9. SERIAL NUMBER: N/A	10. QAD. CONDITIONS NO: Bechtel Quality Control	11. AREA/LOC. OF NC: N/A	2. DATE: 11-2-79
			3. DATE OF REV: N/A
			4. FILE NO: 16.3.6

12. "AS IS" NONCONFORMANCE CONDITION VERSUS "AS REQUIRED" CONDITION WITH REFS:

See Page 3

5. DISTRIBUTION

ACTION COPY:

LADreisbach

INFO COPY:

WLBarclay, WRBird, TCCooke(2), JLCorley, LEDavis, RHermeston, SHHowell, DRJohnson, GSKeeley, BWMarguglio, JMilandin, DBMiller, WGMoring, JARutgers, RASimanek, DATaggart

13. QA RECOMMENDATION FOR PART DA:

See Page 3

DESIGN/PROJECT ENG. DISPOSITION REQUIRED [X] NOT REQUIRED [ ]

14. HOLD TAGS APPLIED: YES [X] NO [ ]

TAGGED LOCATION & DATE OF HOLD TAG ACTION: Two (2) Bechtel Hold Tags applied to the well samples @ U.S.T. Lab. Four (4) Bechtel Hold Tags applied to the well samples NW of SGT

15. IS PROCESS CA REQUIRED: YES [X] NO [ ] IF NO, ENTER JUSTIFICATION BELOW:

N/A

16. DOES NC AFFECT A-LIST ITEM: YES [X] NO [ ]

17. IS NC REPORTABLE PER 50.55(e): YES [ ] NO [X]

18. IS NC REPORTABLE PER PART 21: YES [ ] NO [X]

19. IF YES, DATE & TIME OF REPORT TO NRC: N/A

20. IF YES, WHO MADE REPORT TO NRC: N/A

21. IF YES, NAME OF NRC OFFICIAL TO WHOM REPORTED: N/A

22. NCR ORIGINATED BY: Donald E. Horn

23. WRITTEN REPLY REQUIRED BY: 11/16/79 TO ESTABLISH CA COMPLETION DATE

24. SUPERVISOR'S SIGNATURE/DATE: Donald E. Horn 11-2-79

25. PART CA DISPOSITION, VERIFICATION & COMPLETION DATE:

90007213

26. DESIGN/PROJECT ENG. AUTH. DISP.:	27. PMO ENG. AUTH. DISP.:	28. PROCUREMENT ENG. AUTH. DISP.: N/A	29. ENG. OF ENG. AUTH. DISP.: N/A
30. PAB/CONST. ENG. AUTH. DEP. DISP.:	31. ENG. OF CONT GROUP ACCEPT. CONDITION: N/A	32. PMR MAJOR MOD - FAIL PURP. ENG. AUTH. DISP.: N/A	33. QA AUTH. ENG. TO DISPOSITION DISP.:

34. VERIFIED OF PART CA VERIFICATION:

35. ENG. OF ENG. DISP. FOR PART DA SUSPENDING CONDITION:	36. ENG. VERIFYING PART DA & HOLD TAG REMOVAL DATE:	37. NCR CLOSED BY/DATE: (PART & PROCESS CA COMPLETE)

Consumers Power Company

NONCONFORMANCE REPORT
PROCESS CORRECTIVE ACTION

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

NCR SERIAL NUMBER M-01-4-9

38. SA ASSESSMENT OF ROOT CAUSE(S):

(1) - (2) Unknown, to be determined

39. ACTUAL ROOT CAUSE(S), IF DIFFERENT FROM A2072 (TO BE COMPLETED BY ORG. RESPONSIBLE FOR PROCESS CA):

40. PROCESS CA ARISING FROM:

DESIGN [ ] FABRICATION [ ] CONSTRUCTION [ ] PROCUREMENT [ ] INSPECTION [X]

OTHER

41. SA RECOMMENDATION FOR PROCESS CA:

(1) - (2) Unknown, to be determined

42. PROCESS CA TO BE TAKEN BY ORG(S) CITED IN BLOCK 41 & DATE OF COMPLETION:

43. METHOD OF PROCESS CA VERIFICATION:

90007214

44. SIG. OF ORG. RESPONSIBLE FOR PROCESS CA STATEMENTS COMPLETION:

45. PROCESS CA COMPLETION VERIFIED BY/DATE:

NCR SERIAL NO: M-01-4-9-128
DATE: 11-2-79
DATE OF REV: N/A
FILE NO: 16.3.6

12. "AS IS" NONCONFORMING CONDITION VERSUS "AS REQUIRED" CONDITION WITH REFS:

(Cont'd from Page 1)

Specification C-88 Revision 1, Section 6.A.3 states in part, "Each individual well shall also be inspected by Contractor during installation in accordance with the following criteria. After the initial 15 minutes of pumping, the effluent shall be tested for fines using a 1-liter Buchner Funnel."

Contrary to this requirement, effluent has been sampled once from well valve number 303, 303A, 304, 305, 305A, 306, 307, 308, 308A, 309, 310, 310A, 311, 312, 312A, 313, 314, 314A, 315, 316, 317, 318, 318A, 319, 320, 321, 322, 324, 325, 325A, 326, 326A and twice from 322A (10-12-79 and 10-17-79) and (1) Neither Field Inspection Report nor Project Quality Control Instruction have been used to document the dewatering well installation activities and the draft Field Inspection Report to be used for documenting the dewatering well installation activities does not specifically call out the inspection activity above for the 33 wells installed to date (Note: QC has observed sampling of most of the wells and has notes on these, accordingly), (2) there is no approved procedure for the monitoring/testing for fines for the 34 well samples obtained to date.

13. QA RECOMMENDATION FOR PART CA:

(Cont'd from Page 1)

(1) a. Implement a Field Inspection Report or Project Quality Control Instruction.

b. Revise the draft Field Inspection Report, if it is to be used, to include specific inspection of the initial pumping.

c. Review Specification C-88 for other inspection activities that may have been left out of the FIR and revise the FIR accordingly, if the FIR is to be used.

d. Obtain Project Engineering's disposition as to the acceptability of the samples taken to date.

(2) Obtain an approved procedure(s) for the monitoring/testing for fines prior to further monitoring/testing.

0

Start Up System: 1-PBA

Consumers Power Company

NONCONFORMANCE REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

6. FACILITY NAME: Midland	7. NONCONFORMING PART NO: 1AA0502 N-1	8. NONCONFORMING PART NAME: Termination	1. NCR NO: N-QT-79-129
			2. DATE: 11-1-79
9. SERIAL NUMBER: NA	10. ORG. CONNECTING NO: Bechtel Const & QC	11. AREA/LOC. OF NC: Elev 614'-0" Aux Bldg	3. DATE OF DEV: NA
			4. TITLE NO: 16.3.4, 16.3.6

12. AS IS NONCONFORMANCE CONDITION VERSUS THE REQUIRED CONDITION WITH REF:

Drawing E-900, Rev 37 and the Inspection Record for termination 1AA0502 N-1 indicates the black lead should be terminated at wire No 1NK.

Contrary to the above, the black lead of termination 1AA0502 N-1 is terminated at wire No 3K.

5. DISTRIBUTION

ACTION COPY:

LADreisbach

INFO COPY:

WLBarclay, WRBird, TCCooke(2), JLCorley, LEDavis, RHermeston, SHHowell, DRJohnson, GSKeeley, BWMarguglio, JMilandin, DBMiller, WGMoring, JARutgers, RASimanek, DATaggart

13. QA RECOMMENDATION FOR PART 21:

It is recommended that Construction determine the error and take corrective action. It is further recommended that QC reinspect all activities on the Inspection Record.

DESIGN/PROJECT ENG. DISPOSITION REQUIRED [ ] NOT REQUIRED [X]

14. HOLD TAGS APPLIED: YES [ ] NO [X] TAGGED, LOCATION & TYPE OF HOLD TAGS APPLIED: NA

15. IN PROCESS QA REQUIRED: YES [X] NO [ ] IF NO, ENTER JUSTIFICATION BELOW:

16. DOES NC AFFECT A-LIST ITEM: YES [X] NO [ ]

17. IS NC REPORTABLE PER 50.55(e): YES [ ] NO [X]

18. IS NC REPORTABLE PER PART 21: YES [ ] NO [X]

19. IF YES, DATE & TIME OF REPORT TO NRC: NA

20. IF YES, AND PART REPORT TO NRC: NA

21. IF YES, NAME OF NRC OFFICIAL TO WHOM REPORTED: NA

22. NCR GENERATED BY: Eugene A Jones

23. CAUSES ULTIMATELY REVIEWED BY: 11-16-79

TO ESTABLISH QA COMPLETION DATE

24. APPROVED BY & DATE: Paul R Lozen 11-1-79

25. PART QA DISPOSITION, JUSTIFICATION & COMPLETION DATE:

26. DESIGN/PROJECT ENG. APPR. DISP.: NA	27. NQA DISP. APPR. DISP.: NA	28. PROCUREMENT ENG. APPR. DISP.: NA	29. DATE OF DISP. APPR. FOR USA:
30. PAB/CONST. ENG. APPR. DISP. DISP.:	31. ENG. IF NOT PROJ APPROV. DISPOSITION: NA	32. ENG. PAB/A ENG. APPR. DISP. ENG. APPR. DISP.: NA	33. QA APPR. ENG. TO CONCURRENCE DISP.:

34. REASON IF PART QA CONCURRENCE:

35. ENG. IF ENG. REQ. FOR PART QA PERFORMING COMPLETION:	36. ENG. VERIFICATION PART QA & HOLD TAG REMOVAL DATE:	37. QA FINAL APPROVAL DATE: (PART & PROCESS QA COMPLETE):

90007216

Consumers Power Company

NONCONFORMANCE REPORT
PROCESS CORRECTIVE ACTION

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

NCR SERIAL NUMBER: M-01-4-9-129

18. QA ASSESSMENT OF ROOT CAUSE(S):

To be determined.

19. ACTUAL ROOT CAUSE(S), IF DIFFERENT FROM ABOVE (TO BE COMPLETED BY ORG. RESPONSIBLE FOR PROCESS CA):

20. PROCESS CA ORIGINATED FROM:

DESIGN [ ] FABRICATION [ ] CONSTRUCTION [X] PROCUREMENT [ ] INSPECTION [X]

OTHER _____

21. QA RECOMMENDATION FOR PROCESS CA:

It is recommended that termination crews be trained in the importance of the terminal block tabs that have wire numbers on them and/or the importance that each wire be terminated at the proper point.
It is further recommended that QC inspectors for terminations receive the same training and that periodic verification be made of Inspection Records in the field prior to the Level II signature being placed on the record.

22. PROCESS CA TO BE TAKEN BY ORG(S) CITED IN BLOCK 21 & DATE OF COMPLETION:

90007217

23. METHOD OF PROCESS CA VERIFICATION:

24. ORG. IN ORG. RESPONSIBLE FOR PROCESS CA VERIFYING COMPLETION:

25. PROCESS CA COMPLETION VERIFIED (DATE):

0

Start Up System: BBC

Consumers Power Company

NONCONFORMANCE REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

6. PROJECT NAME: Midland	7. NONCONFORMING PART NO: See Block 12	8. NONCONFORMING PART NAME: Reactor Coolant Pump Stud Nut	1. NCR SERIAL NO: M-01-9-9-130
			2. DATE: 11-1-79
9. SERIAL NUMBER: NA	10. ORG. CONCERNED NO: B&W NPGD	11. AREA/LOC. OF NC: Containment #2	3. DATE OF REV: NA
			4. FILE NO: 16.4.1

12. AS IS NONCONFORMANCE CONDITION VERSUS AS REQUIRED CONDITION WITH REF:

On reactor coolant pump 2P-51D, the nut identified on the Midland Baseline Inspection as 2P-51D-3 has a longitudinal indication that has been identified as a possible stress riser.

5. DISTRIBUTION

ACTION COPY:

CEMahaney

INFO COPY:

WLBarclay RWShope
WRBird DATaggart
TCCooke(2)
JLCorley
LEDavis
LADreisbach
SHHowell
GSKeeley
BWMarguglio
DBMiller

13. CA RECOMMENDATION FOR PART DA:

Have the indication evaluated by Byron-Jackson as a possible stress riser. (This has already been requested by CPCo Project Management in letter CSC-4545 dated 10/31/79. The response to that letter should be sufficient to disposition this NCR.)

DESIGN/PROJECT ENG. DISPOSITION REQUIRED [X] NOT REQUIRED [ ]

14. HOLD TAGS APPLIED: YES [X] NO [ ]

TOTALS, LOCATION & TYPE OF HOLD TAGS APPLIED: One (1) tag attached to nut.

15. IS PROCESS CA REQUIRED: YES [ ] NO [X] IF NO, ENTER JUSTIFICATION BELOW:

All of the nuts are at the site, therefore, no corrective action in the manufacturing process for our equipment is possible.

16. DOES NC AFFECT A-LIST ITEM: YES [X] NO [ ]

17. IS NC REPORTABLE PER 50.55(e): YES [ ] NO [X]

18. IS NC REPORTABLE PER PART 21: YES [ ] NO [X]

19. IF YES, DATE & TIME OF REPORT TO NRC: NA

20. IF YES, WHO MADE REPORT TO NRC: NA

21. IF YES, NAME OF NRC OFFICIAL TO WHOM REPORTED: NA

22. NCR VALIDATED BY: RE Whitaker

23. VALIDATION REPORT REQUIRED BY: 12-1-79

TO ESTABLISH CA COMPLETION DATE

24. SUPERVISOR'S SIGNATURE/DATE: RE Whitaker for WR Bird per telecon 10/31/79

25. PART CA DISPOSITION, JUSTIFICATION & COMPLETION DATE:

26. DESIGN/PROJECT ENG. AUTH. DISP.:

27. ENG TEC. AUTH. DISP.:

28. PROCUREMENT ENG. AUTH. DISP.:

29. ENG. IF ENG. REQ. FOR CA:

30. FAB/CONST. ENG. AUTH. DISP. DISP.:

31. ENG. IF DISP REQ'D ACCEPT. DISPOSITION:

32. FOR PACKS NCR - ENG. AUTH. ENG. AUTH. DISP.:

33. CA AUTH. ENG. TO CONTROL DISP.:

34. VERIFIED IF PART CA VERIFICATION:

35. ENG. IF ENG. REQ. FOR PART DA SIGNATURE/DATE:

36. ENG. VERIFICATION PART DA & HOLD TAG REMOVAL DATE:

37. NCR CLOSED BY/DATE: (PART & PROCESS CA COMPLETE)

90007218

Consumers Power Company

NONCONFORMANCE REPORT
PROCESS CORRECTIVE ACTION

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

NCR SERIAL NUMBER: M-01-9-9-130

39. QA ASSESSMENT OF ROOT CAUSE(S):

39. ACTUAL ROOT CAUSE(S), IF DIFFERENT FROM ABOVE (TO BE COMPLETED BY CRO, RESPONSIBLE FOR PROCESS CA):

40. PROCESS CA RESULTED FROM:

DESIGN ☐ FABRICATION ☐ CONSTRUCTION ☐ PROCUREMENT ☐ INSPECTION ☐

OTHER _____

41. QA RECOMMENDATION FOR PROCESS CA:

42. PROCESS CA TO BE TAKEN BY CRO(S) CHECKED IN BLOCK 41 & DATE OF COMPLETION:

43. METHOD OF PROCESS CA VERIFICATION:

90007219

44. SIG. OF CRO, RESPONSIBLE FOR PROCESS CA VERIFICATION COMPLETION:

45. PROCESS CA VERIFICATION CLOSED DATE:

Start-Up System: Indeterminate

Consumers Power Company

NONCONFORMANCE REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

6. PROJECT NAME: Midland Nuclear Plant	7. NONCONFORMING PART NO: See Below *	8. NONCONFORMING PART NAME: Instrument Racks	1. NCR SERIAL NO: M-01-[illegible]-9-131
9. SERIAL NUMBER: N/A	10. ORG. CONNECTING NO: Bechtel Construction	11. AREA/LOC. OF NC: Reactor Building #2	2. DATE: 11/5/79
			3. DATE OF REV: N/A
			4. FILE NO: 16.3.6

12. "AS IS" NONCONFORMING CONDITION VERSUS "AS REQUIRED" CONDITION WITH REFS:

Specification J-401-4 Rev 3, Instrument Installation Details Seismic Category I Racks and Supports, Note #11 states in part "...or painted in accordance with Specification 7220-A-41(Q), System F-3." Also Specification A-41, Rev 04, Field Priming and/or Top Coating of Steel Surfaces, 11.3.3.f states in part "Check for the following coating defects and take appropriate corrective action: 1. Loss of adhesion to metal substrate or between coats."

(Continued on page 3)

5. DISTRIBUTION

ACTION COPY: LADriesbach

INFO COPY: WLBarclay, WRBird, TCCooke(2), JLCorley, LEDavis, RHermeston, SHHowell, DRJohnson, GSKeeley, BWMarguliolo, JMilandin, DRMillar, WGMoring, JARutgers, RASimanek, DATaggart

13. CA RECOMMENDATION FOR PART CA:

1) Reinspect all instrument supports installed in containment for similar deficiencies, identify and have project engineering disposition all nonconforming items.

DESIGN/PROJECT ENG. DISPOSITION REQUIRED [X] NOT REQUIRED [ ] (Continued on page 3)

14. HOLD TAGS APPLIED: YES [ ] NO [X] NUMBER, LOCATION & DATE OF HOLD TAGS APPLIED: N/A

15. IS PROCESS CA REQUIRED: YES [X] NO [ ] IF NO, ENTER JUSTIFICATION BELOW: N/A

16. DOES NC AFFECT Q-LIST ITEM: YES [X] NO [ ]

17. IS NC REPORTABLE PER 50.55(e): YES [ ] NO [ ]

18. IS NC REPORTABLE PER PART 21: YES [ ] NO [X]

19. IF YES, DATE & TIME OF REPORT TO NRC: N/A

20. IF YES, WHO MADE REPORT TO NRC: N/A

21. IF YES, NAME OF NRC OFFICIAL TO WHOM REPORTED: N/A

22. NCR GENERATED BY: A. J. Lodl

23. WRITTEN REPLY REQUIRED BY: 11/29/79 TO ESTABLISH CA COMPLETION DATE

24. SUPERVISOR'S SIGNATURE/DATE: R. G. Wallney 11/6/79

25. PART CA DISPOSITION, JUSTIFICATION & COMPLETION DATE:

26. DESIGN/PROJECT SIG. AUTH. DISP.: N/A	27. PMO SIG. AUTH. DISP.: N/A	28. PROCUREMENT SIG. AUTH. DISP.: N/A	29. SIG. OF SUB. AUTH. DISP. (IF ANY): N/A
30. FAB/CONST. SIG. AUTH. DISP. DISP.: N/A	31. SIG. OF NEXT HIGHER ACTION, IDENTIFICATION: N/A	32. FOR MAJOR MOD - SIG. SUPV. SIG. AUTH. DISP.: N/A	33. QA AUTH. SIG. TO DISPOSITION DISP.:

34. VERIFIED IF PART CA VERIFICATION:

35. SIG. OF DES. REQ. FOR PART CA STATISTICAL COMPLETION: N/A	36. SIG. VERIFICATION PART CA & HOLD TAG REMOVAL DATE: N/A	37. NCR CLOSED BY DATE: (PART & PROCESS CA COMPLETE):

90007220

Consumers Power Company

NONCONFORMANCE REPORT
PROCESS CORRECTIVE ACTION

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

NCR SERIAL NUMBER: M-01-4-9-13

38. QA ASSESSMENT OF ROOT CAUSE(S):

Unknown, to be determined

39. ACTUAL ROOT CAUSE(S), IF DIFFERENT FROM ABOVE (TO BE COMPLETED BY ORG. RESPONSIBLE FOR PROCESS CA):

40. PROCESS CA REQUIRED FROM:

DESIGN ☐ FABRICATION ☐ CONSTRUCTION ☐ PROCUREMENT ☐ INSPECTION ☐

OTHER To be determined

41. QA RECOMMENDATION FOR PROCESS CA:

42. PROCESS CA TO BE TAKEN BY ORG(S) CHECKED IN BLOCK 40 & DATE OF COMPLETION:

43. METHOD OF PROCESS CA VERIFICATION:

90007221

44. SIG. OF ORG. RESPONSIBLE FOR PROCESS CA STATUS/DATE COMPLETION:

45. PROCESS CA COMPLETION VERIFIED BY/DATE:

NCR SERIAL NO: M-01-4-9-131
DATE: 11/5/79
DATE OF REV: N/A
FILE NO: 16.3.6

12. "AS IS" NONCONFORMING CONDITION VERSUS "AS REQUIRED" CONDITION WITH REFS:

(Continued from page 1)

During surveillance of Instrument Supports, RB/2 @ Elevation 640'-0", loss of adhesion between the topcoat and prime coat was identified on the following:

*2FT-0201 A1	2FT-0201 A4	2PT-11-4 A1
2FT-0201 A2	2PT-3434 D	2PT-11-4 A2

13. QA RECOMMENDATION FOR PART CA

(Continued from page 1)

2) Project Engineering: Investigate and determine if loss of adhesion between coats is due to lack of curing during application or inadequate curing procedures. Take corrective action to preclude repetition.

3) Determine if nonconformance is reportable per 50.55(e).

90007222

X

Start Up System: Indeterminate

Consumers Power Company

NONCONFORMANCE REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

6. PROJECT NAME: Midland Nuclear Plant	7. NONCONFORMING PART NO: NA	8. NONCONFORMING PART NAME: Epoxy Coatings	1. NCR SERIAL NO: M-01-4-9-132
			2. DATE: 11-8-79
9. SERIAL NUMBER: NA	10. SUB. CONTRACTOR NO: J L Manta Co	11. AREA/LOC. OF NC: Reactor Building #2	3. DATE OF REV: NA
			4. FILE NO: 16.7

12. AS IS NONCONFORMANCE CONDITION VERSUS AS REQUIRED CONDITION WITH REFS:

Specification A-15, Rev 7, Epoxy or Phenolic Decontaminative Surfacer, 10.5 states in part, "Deficiencies and defects shall be removed and replaced or corrected to Contractor's satisfaction..."

J L Manta QA Manual 10.1.0 states, "All coating exceptions will be recorded on Form JLM 1001 and the area of the defective coating will be tagged with JLM 1-3 by the Field Quality Assurance/ Quality Control Inspector".

(Contd on Page 3)

5. DISTRIBUTION

ORIGIN COPY:

LADreisbach

DOCO COPY:

WLBarclay	DWMarguglio
WRBird	JMilandin
RBCherba	DBMiller
TCCooke(2)	WGMoring
JLCorley	JARutgers
LEDavis	RASimanek
RHermeston	DATaggart
SHHowell	WCBates
DRJohnson	ALDelange
GSKeeley	

13. RA RECOMMENDATION FOR PART 21:

1. Determine root cause or failure not to be less than:
   a. Reinspect all other areas where same batch of material was used.

(Contd on Page 3)

DESIGN/PROJECT ENG. DISPOSITION REQUIRED [ ] NOT REQUIRED [X]

14. HOLD TAGS APPLIED: YES [ ] NO [X] TAGGED, LOCATION & TYPE OF HOLD TAGS APPLIED: NA

15. IS PROCESS QA REQUIRED: YES [X] NO [ ] IF NO, ENTER JUSTIFICATION BELOW:

16. DOES NC AFFECT A-LIST ITEM: YES [X] NO [ ]

17. IS NC REPORTABLE PER 50.55(e): YES [ ] NO [ ]

18. IS NC REPORTABLE PER PART 21: YES [ ] NO [X]

19. IF YES, DATE & TIME OF REPORT TO NRC:

20. IF YES, NRC DATE REPORT TO NRC:

21. IF YES, NAME OF NRC OFFICIAL TO WHOM REPORTED:

22. NCR INITIATED BY: J. A. [illegible]

23. ACCEPTED REPLY REQUIRED BY: 11-26-79

TO ESTABLISH QA CONCURRENCE DATE

24. SUPERVISOR'S SIGNATURE/DATE: RG Wolbrey 11/8/79

25. PART QA DISPOSITION, CONCURRENCE & CONCURRENCE DATE:

26. PLANT/PROJECT ENG. ACCEP. DISP.: NA	27. QAD ENG. ACCEP. DISP.: NA	28. PROJECT ENG. ACCEP. DISP.: NA	29. ENG. OF REC. ACCEP. DISP. (QA): NA
30. PAR/CONST. ENG. ACCEP. DISP. DISP.: NA	31. ENG. OF TEST SPOT ACCEP. DISPOSITION: NA	32. PER ALGN ENG. - FLD. ENGR. ENG. ACCEP. DISP.: NA	33. QA ACCEP. ENG. TO DISPOSITION DISP.:

34. REVIEW OF PART QA DISPOSITION:

35. ENG. OF REC. ACCEP. FOR PART QA DISPOSITION: NA	36. ENG. VERIFICATION DATE QA & HOLD TAG REMOVAL DATE: NA	37. ENG. FOLLOW UP DATE (PART & PROCESS QA COMPLETE):

90007223

Consumers Power Company

NONCONFORMANCE REPORT
PROCESS CORRECTIVE ACTION

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

NCR SERIAL NUMBER M-01-4-9-132

39. QA ASSESSMENT OF ROOT CAUSE(S):

Lack of requirement/procedure for the inspection/test and defined parameters for adhesion of coatings.

39. ACTUAL ROOT CAUSE(S), IF DIFFERENT FROM ABOVE (TO BE COMPLETED BY CHG. RESPONSIBLE FOR PROCESS QA):

40. PROCESS QA INITIATED FROM:

DESIGN [X] FABRICATION [ ] CONSTRUCTION [X] PROCUREMENT [ ] INSPECTION [X]

OTHER

41. QA RECOMMENDATION FOR PROCESS QA:

1. Pending results of root cause for deficiency, recommend corrective action to preclude repetition.
2. Project Engineering: Determine need for inspection of other type of defectives not presently requiring specific inspection. Recommend methods and/or acceptance parameters/standards.

42. PROCESS QA TO BE TAKEN BY CHG(S) CITED IN BLOCK 41 & DATE OF COMPLETION:

43. METHOD OF PROCESS QA VERIFICATION:

90007224

44. SIG. OF CHG. RESPONSIBLE FOR PROCESS QA VERIFICATION COMPLETION:

45. PROCESS QA COMPLETED VERIFIED BY/DATE:

NCR SERIAL NO: M-01-4-9-132
DATE: 11-8-79
DATE OF REV: NA
FILE NO: 16.7

12. "AS IS" NONCONFORMING CONDITION VERSUS "AS REQUIRED" CONDITION WITH REFS:

(Contd from Page 1)

Contrary to the above, on the northwest exterior face of the primary shield wall from elevation 593'-6" to about 603'-0", the coating exhibited loss of adhesion between surfacer and the topcoat. The area was neither tagged as defective nor identified as an exception prior to CPCo identification.

13. QA RECOMMENDATION FOR PART CA:

(Contd from Page 1)

1. b. Determine if generic only to same material or if a deficiency in application. Submit determination to Contractor for concurrence.

   c. Provide a program, for approval, to sample all previously completed work to assure deficiency is not generic to all epoxy concrete coatings.

   d. Reinspect all previously completed work in accordance with approved plan and identify findings.

2. Rework/repair all areas identified as defective as a result of this nonconformance.

3. Determine reportability.

90007225

0

Start Up System: ABA

Consumers Power Company

NONCONFORMANCE REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

6. PROJECT NAME: Midland	7. NONCONFORMING PART NO: NA	8. NONCONFORMING PART NAME: Contract #J-242AC Venturi Tube	1. NCR TITLE NO: M-01-9-9-133
			2. DATE: 11-15-79
9. SERIAL NUMBER: 1FE 3803 2FE 3903	10. BIF CONTROLLING DC: BIF/Bechtel Procurement	11. AREA/LOC. OF DEF: NA	3. DATE OF DEF: NA
			4. PER NO: 16.3.2

12. AS IS NONCONFORMANCE CONDITION (WHAT WAS REQUIRED, CONDITION FOUND, ETC.):

Radiographs fail to meet requirements of radiographic procedure Acme Spec NDT 1B. Nonconforming conditions include:

1. Failure to meet minimum density of 1.8 (Ref para 5.4).
2. Density in area of interest varies by more than -15% of penetrameter density (Ref para 5.4).
3. Surface of welds fail to meet requirements of para 5.1 for proper interpretation of radiographs.
4. Procedure fails to implement requirements of para 1.0 (Scope) in that quantity of film per cassette is not stated.
5. BIF failed to provide interpretation and disposition for weld #2 of Unit 1FE 3803.

5. DISTRIBUTION

ACTION COPY:

LADreisbach

INFO COPY:

WLBarclay, RASimanek, WRBird, DATaggart, TCCooke(2), JLCorley, SHHowell, DRJohnson, GSKeeley, BWMarguglio, JMilandin, DBMiller

13. CA RECOMMENDATION FOR RWK DA:

1. Re-radiograph nonconforming items.

REVIEW/PROJECT ENG. DISPOSITION REQUIRED [ ] NOT REQUIRED [X]

14. HOLD TAGS APPLIED: YES [ ] NO [X] TYPES, LOCATION & DATE OF HOLD TAGS APPLIED: NA

15. IS PROCESS CA REQUIRED: YES [X] NO [ ] IF NO, ENTER JUSTIFICATION BELOW:

16. DOES NC AFFECT A-LIST ITEM: YES [X] NO [ ]

17. IS NC REPORTABLE PER 50.55(e): YES [ ] NO [X]

18. IS NC REPORTABLE PER PART 21: YES [ ] NO [X]

19. IF YES, DATE & TIME OF REPORT TO NRC: NA

20. IF YES, WAS NRC REPORT TO NRC: NA

21. IF YES, NAME OF NRC OFFICIAL TO WHOM REPORTED: NA

22. NCR CHARGEABLE BY: [signature]

23. VENDOR REPLY REQUIRED BY: 11-29-79

TO DETERMINE CA COMPLETION DATE

24. SUPERVISOR'S DESIGNATED DATE: [signature] 11-15-79

25. PART CA DISPOSITION, JUSTIFICATION & COMPLETION DATE:

26. PROJECT/PROJECT ENG. APPR. DISP.:

27. PMO ENG. APPR. DISP.:

28. PROCUREMENT ENG. APPR. DISP.:

29. ENG. OF REC. DISP. (CA APP.):

30. PAB/CONST. ENG. APPR. DIS. DISP.:

31. ENG. IF NOT PROJ REVIEW. DISPOSITION:

32. PER WRITE HOD - PAB. REPT. ENG. APPR. DISP.:

33. CA APPR. ENG. TO COMPLETE DISP.:

34. METHOD OF PART CA VERIFICATION:

35. ENG. IF ENG. DISP. FOR PART CA VERIFICATION & COMPLETION:

36. ENG. VERIFYING PART CA & HOLD TAG REMOVAL DATE:

37. NCR CLOSED BY DATE: (PART & PROCESS CA COMPLETED)

90007226

Consumers Power Company

NONCONFORMANCE REPORT
PROCESS CORRECTIVE ACTION

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

NCR SERIAL NUMBER M-01-9-9-133

38. QA ASSESSMENT OF ROOT CAUSE(S):

To be determined at a later date.

39. ACTUAL ROOT CAUSE(S). IF DIFFERENT FROM ABOVE (TO BE COMPLETED BY ORG. RESPONSIBLE FOR PROCESS QA):

40. PROCESS QA REVISED FROM:

DESIGN [ ] FABRICATION [ ] CONSTRUCTION [ ] PROCUREMENT [X] INSPECTION [ ]

OTHER _____

41. QA RECOMMENDATION FOR PROCESS QA:

To be determined at a later date.

42. PROCESS QA TO BE TAKEN BY ORG(S) CITED IN BLOCK 41 & DATE OF COMPLETION:

43. METHOD OF PROCESS QA VERIFICATION:

90007227

44. ORG. OF ORG. RESPONSIBLE FOR PROCESS QA VERIFICATION CONFIRMATION:

45. PROCESS QA CONFIRMATION COMPLETED (DATE):

Start Up System: 2PPA, 2PPB

Consumers Power Company

NONCONFORMANCE REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

6. PROJECT NAME: Midland 1 & 2	7. NONCONFORMING PART NO: 2Y31 and 2Y32	8. NONCONFORMING PART NAME: 120V AC Control & Instr Distr Pnl	1. NCR TRACK NO: M-01-9-79-134
9. SERIAL NUMBER: NA	10. SUB. CONTRACTOR NO: Bechtel Const	11. AREA/LOC. OF NC: 614' Level Swgr Rm	2. DATE: 11-26-79
			3. DATE OF DEV: NA
			4. CFR NO: 16.3.4

12. AS IS NONCONFORMING CONDITION ISSUE AS DEVIATED CONDITION (TEST DATA):

Overinspection of the above Distribution Panels revealed the following deficiencies:

1. Neither panel was identified as required by drawing E-47(Q) paragraph 5.10 (color coding).
2. Both panels have construction debris in the bottom indicating lack of housekeeping per FPG-7.000.
3. Panel 2Y32 has a 2"x4" metal plate, not shown on vendor plan, loose inside the panel presenting a potentially hazardous situation.

(Contd on Page 3)

5. DISTRIBUTION

ACTION COPY: LADreisbach

INFO COPY:

WLBarclay	BWMarguglio
WRBird	JMilandin
RBCherba	DBMiller
TCCooke(2)	WGMoring
JLCorley	JARutgers
LEDavis	RASimanek
RHermeston	DATaggart
SHHowell	
DRJohnson	
GSKeeley	

13. CA RECOMMENDATION FOR PART 21:

Correct deficiencies in panels 2Y31 and 2Y32.

DESIGN/PROJECT ENG. DISPOSITION REQUIRED [X] NOT REQUIRED [ ]

14. HOLD TAGS APPLIED: YES [ ] NO [X] TAGNO, LOCATION & DATE OF HOLD TAGS APPLIED: NA

15. IS PROCESS CA REQUIRED: YES [ ] NO [ ] IF NO, OTHER JUSTIFICATION REQUIRED:

16. DOES NC AFFECT 4-LEVEL ITEM: YES [X] NO [ ]

17. IS NC REPORTABLE PER 50.55(e): YES [ ] NO [X]

18. IS NC REPORTABLE PER PART 21: YES [ ] NO [X]

19. IF YES, DATE & TIME OF REPORT TO NRC: NA

20. IF YES, WHO MADE REPORT TO NRC: NA

21. IF YES, NAME OF NRC OFFICIAL TO WHOM REPORTED: NA

22. NCR GENERATED BY:

23. WRITTEN NOTE ISSUED BY: 12-10-79

24. INSPECTOR'S SIGNATURE/DATE: 11/26/79

TO ESTABLISH CA COMPLETION DATE

25. PART CA DISPOSITION, JUSTIFICATION & COMPLETION DATE:

26. DESIGN/PROJECT ENG. APPR. DISP.:	27. QAD ENG. APPR. DISP.: NA	28. PROCUREMENT ENG. APPR. DISP.: NA	29. ENG. IF ENG. CHANGE FOR NCR:
30. FABRICANT. ENG. APPR. DISP. DISP.:	31. ENG. IF NOT DONE ABOVE. DISPOSITION: NA	32. ENG. MADE NCR - ENG. DISP. ENG. APPR. DISP.: NA	33. CA APPR. ENG. TO DISPOSITION:

34. STATUS OF PART CA DISPOSITION:

35. ENG. IF ENG. DISP. FOR PART CA VERIFYING COMPLETION:	36. ENG. VERIFIED PART CA & DATE AND REMOVAL DATE:	37. QCI CLOSED BY DATE: (PART & PROCESS CA COMPLETE):

90007228

Consumers Power Company

NONCONFORMANCE REPORT
PROCESS CORRECTIVE ACTION

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

NCR SERIAL NUMBER: M-01-9-9-134

38. QA ASSESSMENT OF ROOT CAUSE(S):

Missed items by QC Engineer.

39. ACTUAL ROOT CAUSE(S), IF DIFFERENT FROM ABOVE (TO BE COMPLETED BY ORG. RESPONSIBLE FOR PROCESS QA):

40. PROCESS QA RESULTED FROM:

DESIGN ☐ FABRICATION ☐ CONSTRUCTION ☐ PROCUREMENT ☐ INSPECTION ☐

OTHER _____

41. QA RECOMMENDATION FOR PROCESS QA:

Insure all activities have been completed prior to signoff by QCE and closeout of the Inspection Record.

42. PROCESS QA TO BE TAKEN BY ORG(S) CITED IN BLOCK 41 & DATE OF COMPLETION:

43. METHOD OF PROCESS QA VERIFICATION:

90007229

44. YES, IF ORG. RESPONSIBLE FOR PROCESS QA VERIFICATION CONFIRMED:

45. PROCESS QA VERIFICATION METHOD ACCEPTABLE:

90007229

NCR SERIAL NO: M-01-9-9-134
DATE: 11-26-79
DATE OF REV: NA
FILE NO: 16.3.4

12. "AS IS" NONCONFORMING CONDITION VERSUS "AS REQUIRED" CONDITION WITH REFS:

(Contd from Page 1)

4. Panel 2Y32 - a spring is missing from the top left trim clamp making the assembly incomplete per Specification E-45.

Final Bechtel inspection activities on QCIR's E-6.0 - 152 and 159 were signed off as satisfactory on 10/19/79 and the records on these two panels were closed on 10/22/79 and 10/23/79 by Lead Discipline QCE.

90007230

X

Start Up System: OEAA

Consumers Power Company

NONCONFORMANCE REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

6. PROJECT NAME: Midland 1 & 2	7. NONCONFORMING PART NO: OMO 1826-3, OMO 1826-4, OMO 1809	8. NONCONFORMING PART NAME: Valve Motor Operators	1. NCR NUMBER: M-01-79-135
			2. DATE: 11-26-79
9. SERIAL NUMBER: NA	10. ORG. CONTRACTOR NO: Bechtel Const	11. BLDG/LOC. OF NC: Service Water Bldg	3. DATE OF DET: NA
			4. CITE NO: 16.3.4

12. AS IS NONCONFORMANCE CONDITION (WHAT IS REQUIRED TO BE CORRECTED WITH DETAIL):

Overinspection of the above valve operators revealed the following deficiencies:

1. All three motor operators have oil leaking from the motors and from the position indicators.
2. All three motor operators have paint damage caused by rigging tackle.
3. None of the motor operator terminal compts were color coded as required by Drawing E-47.
4. OMO 1826-4 has a plug missing from the side of the terminal box.

(Contd on Page 3)

5. DISTRIBUTION

ACTION COPY:

LADreisbach

INFO COPY:

WLBarclay, BWMarguglio, WRBird, JMilandin, RBCherba, DBMiller, TCCooke(2), WGMoring, JLCorley, JARutgers, LEDavis, RASimanek, RHermeston, DATaggart, SHHowell, DRJohnson, GSKeeley

13. CA RECOMMENDATION FOR PART 21:

1. Determine reason for oil leakage.
2. Correct all deficiencies.

DESIGN/PROJECT ENG. DISPOSITION REQUIRED [X] NOT REQUIRED [ ]

14. FIELD CAUSE CITED: YES [ ] NO [X] SOURCE, LOCATION & TYPE OF FIELD CAUSE CITED: NA

15. IS PROCESS CA REQUIRED: YES [X] NO [ ] IF NO, EXPLAIN RESPONSIBILITY BELOW:

16. DOES NC AFFECT A-LIST ITEM: YES [X] NO [ ]

17. IS NC REPORTABLE PER 50.55(e): YES [ ] NO [X]

18. IS NC REPORTABLE PER PART 21: YES [ ] NO [X]

19. IF YES, DATE & TYPE OF REPORT TO NRC: NA

20. IF YES, WAS PARE REPORT TO NRC: NA

21. IF YES, NAME OF NRC OFFICIAL REPORTED: NA

22. NCR INITIATED BY: [signature]

23. PROCESS ENTRY REQUIRED BY: 12-10-79 TO INITIALIZE CA COMPLETION DATE

24. SUPERVISOR'S (INITIALS/SIGN) DATE: Paul R Slyman 11/26/79

25. PART CA DISPOSITION, JUSTIFICATION & COMPLETION DATE:

26. DESIGN/PROJECT ENG. AUTH. SIGN.:	27. PRO ENG. AUTH. SIGN.: NA	28. PROCUREMENT ENG. AUTH. SIGN.: NA	29. DATE OF ENG. REQ. FOR CA:
30. PARTICIPANT ENG. AUTH. SIGN. DATE:	31. ENG. IF CONT SHOW ACTION. INSPECTION: NA	32. CA MADE AND - FIELD SUPT. ENG. AUTH. SIGN.: NA	33. CA AUTH. ENG. TO INITIALIZE DATE:

34. REPORT OF PART CA VERIFICATION:

35. ENG. IF ENG. REQ. FOR PART CA REINSPECTION INSPECTION:	36. ENG. REPORTED PART CA & ENG. CA REMOVAL DATE:	37. CA CLOSED BY DATE: (PART A PROCESS CA COMPLETE):

90007231

Consumers Power Company

NONCONFORMANCE REPORT
PROCESS CORRECTIVE ACTION

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

NCR SERIAL NUMBER: M-01-9-9-13

18. QA ASSESSMENT OF ROOT CAUSE(S):

Missed items by QC Engineer.

19. ACTUAL ROOT CAUSE(S), IF DIFFERENT FROM ABOVE (TO BE COMPLETED BY ORG. RESPONSIBLE FOR PROCESS CA):

20. PROCESS CA RESULTED FROM:

DESIGN [ ] FABRICATION [ ] CONSTRUCTION [X] PROCUREMENT [ ] INSPECTION [X]

OTHER

21. QA RECOMMENDATION FOR PROCESS CA:

Insure all activities have been completed prior to signoff by QCE and closeout of the Inspe..tion Record. .

22. PROCESS CA TO BE TAKEN BY ORG(S) CITED IN BLOCK 21 & DATE OF COMPLETION:

23. METHOD OF PROCESS CA VERIFICATION:

90007232

24. ORG. OF ORG. RESPONSIBLE FOR PROCESS CA VERIFIED COMPLETION:

25. PROCESS CA CLOSED BY: DATE:

NCR SERIAL NO: M-01-9-9-135
DATE: 11-26-79
DATE OF REV: NA
FILE NO: 16.3.4

12. "AS IS" NONCONFORMING CONDITION VERSUS "AS REQUIRED" CONDITION WITH REFS:

(Contd from Page 1)

Final Bechtel inspection activities on QCIR's E-6.0-9, 83 and 85 were signed off as satisfactory on 9/20/79 for OMO 1826-3 and 4 and on 9/24/79 for OMO 1809. The records on these three valve motor operators were closed on 9/22/79 and 10/2/79 by the Lead Discipline QCE.

90007233

X

Consumers Power Company

NONCONFORMANCE REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

PAGE 1 of 11

4. PROJECT NAME: Midland 1 & 2	5. SUBCONTRACTOR PART NO: NA	6. SUBCONTRACTOR PART NAME: NA	1. NCR SERIAL NO: M-QT-S-B-023
7. MODEL NUMBER: NA	10. ORG. CONNECTION NO: Bechtel Construction & Quality Control	11. AREA/BLDG. OF NC: Service Water Bldg & Pond Area	2. DATE: 3-28-78
			3. DATE OF REV: Closed 11-13-79
			4. PER NO: 16.3.4, 16.3.6

12. "AS IS" NONCONFORMANCE DESCRIPTION (CITE "AS REQUIRED" DESCRIPTION WHEN REQ'D):

See attached pages 3-6.

5. DISCOVERED ACTION GROUP: LADreisbach

DISTRIBUTION: WLBarclay, WRBird, TCCooke(2), JLCorley, LKDavis, RHermeston, SHHowell, DRJohnson, GSKeeley, BWMarguglio, JMilandin, DBMiller, WGMoring, JARutgers, REMcCue, DATaggart

13. CA RECOMMENDATION FOR PART 21:

1) Review listing of items and provide a disposition.
2) Correct the deficiencies.

DESIGN/PROJECT ENG. DISPOSITION REQUIRED [X] NOT REQUIRED [ ]

14. HOLD TAGS APPLIED: YES [ ] NO [X] HOLDER, LOCATION & DATE OF HOLD TAGS APPLIED: NA

15. IS PROCESS CA REQUIRED: YES [X] NO [ ] IF NO, ENTER JUSTIFICATION BELOW:

16. DOES NC AFFECT 4-LEVEL ITEM? YES [X] NO [ ]

17. IS NC REPORTABLE PER 50.55(e): YES [ ] NO [X]

18. IS NC REPORTABLE PER PART 21: YES [ ] NO [X]

19. IF YES, DATE & TYPE OF REPORT TO NRC: NA

20. IF YES, WAS PART REPORT TO NRC: NA

21. IF YES, NAME OF NRC OFFICIAL TO WHOM REPORTED: NA

22. NCR CREATED BY: /s/ D R Keating

23. PROJECT REPLY REQUIRED BY: NA - See original. TO ESTABLISH CA COMPLETION DATE

24. SUPERVISOR'S SIGNATURE/DATE: DRKeating 5-28-78 / DRK 11-13-79

25. PART CA DISPOSITION, IMPLEMENTATION & COMPLETION DATE:

See attached pages 7-10.

26. TESTING/PROJECT ENG. APPL. REQ.: See Block 34 for Letters	27. PMO REQ. APPL. REQ.: 11/13/79	28. PROJECT ENG. REQ. REQ.: NA	29. PMO APPL. REQ. REQ.: See Block 34 for Letters
30. PARTICIPANT ENG. APPL. REQ. REQ.: See Block 34 for Letters	31. ENG. IF NOT PROJ. ACTION: 11/13/79	32. PER NAME REQ. - PMO, PROJ. ENG. REQ. APPL. REQ.: NA	33. CA APPL. REQ. TO DOCUMENT REQ.: DRKeating 11/13/79

34. DESCRIPTION OF PART CA IMPLEMENTATION:

See attached page 10.

35. REQ. IF ENG. REQ. FOR PART CA IMPLEMENTATION JUSTIFICATION: See Block 34 for Letters	36. REQ. VERIFICATION PART CA & HOLD TAG REMOVAL DATE: DRKeating 11/13/79	37. CA CLOSED BY: DATE & PROCESS CA COMPLETE: DRKeating 11/13/79

90007234

Consumers Power Company

NONCONFORMANCE REPORT
PROCESS CORRECTIVE ACTION

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

NCR SERIAL NUMBER M-11-5-8-0

38. QA ASSESSMENT OF ROOT CAUSE(S):

See Block 39.

39. ACTUAL ROOT CAUSE(S), IF DIFFERENT FROM ABOVE (TO BE COMPLETED BY ORG. RESPONSIBLE FOR PROCESS CA):

See attached page 11.

40. PROCESS CA RESULTED FROM:

DESIGN [ ] FABRICATION [ ] CONSTRUCTION [X] PROCUREMENT [ ] SUPPORTING [X]

OTHER

41. QA RECOMMENDATION FOR PROCESS CA:

See Block 42.

42. PROCESS CA TO BE TAKEN BY ORG(S) CITED IN BLOCK 41 & DATE OF COMPLETION:

See attached page 11.

90007235

43. METHOD OF PROCESS CA VERIFICATION:

Reviewed Letters LAD-471 dated October 2, 1978; LAD-461 dated September 25, 1978; GLR-307 dated June 21, 1978; 112FQA78 dated June 2, 1978; QCFM-4846 dated May 30, 1978; GLR-273 dated May 30, 1978; GLR-03-78-158 dated March 29, 1978; General Instructions for the review of all IR's; checklist for reviewing closed Bechtel NCR's for client turnover; QC's Leads Meetings of April 7, 1978 and May 19, 1978; and Meeting Notes File: 0711 Serial: 3038 by TCCooke.

44. ORG. OR ORG. RESPONSIBLE FOR PROCESS CA VERIFICATION COMPLETION:

See Ref GLR-307

45. PROCESS CA COMPLETION VERIFIED BY:

D.R.Keating / [illegible] 11/13/79

NCR SER NO:M-01-5-8-023
DATE OF NCR ORIG: 3-28-78
DATE OF NCR REV: Closed 11-13-79
FILE NO: 16.3.4, 16.3.6

"AS IS" NONCONFORMING CONDITION VERSUS "AS REQUIRED" CONDITION WITH REFS: (Contd)

The following items were not in the turnover packages. Review could, therefore, not be conducted and status of affected items is indeterminate:

Cooling Pond/Emergency Pond Earthwork
(Turnover System - DEC Sequential No. 001)

1. Some of the drawings listed for "As-built" drawings are not "As-built" in the turnover. Drawings C-109 Rev. 9 & C-111 Rev. 10 still have "Hold" on them.
2. No design change requests (DCN's, FCR's) and design deviations were in the turnover.
3. The Canonie QA Manual should be included in the turnover.
4. Receiving documentation to be turned over by purchase order at a later date.

C-210-22-36

1. Is missing Bechtel Modified Proctor ROZ-2.

C-210-22-37

1. Is missing Bechtel Modified Proctors BMP 293 and BMP 297.
2. Other Bechtel MOdified Proctors may be missing, BMP's are not found consecutively numbered.

C-210-5-5

1. There is an index section for "Sieve Analysis" but it is empty.

Service Water Pump Structure - Wetted Surfaces Only
(Turnover System FACL Sequential No. 010)

Service Water Discharge Structures
(Turnover System FACL Sequential No. 011)

1. Receiving documentation to be turned over by purchase orders at a later date.

SW-2-45 - Pour SWR(636.5)c'

1. Pours SWR(636.5)a' and SWR(636.5)b' are missing.

Service Water Discharge Pipe - Pond to Isolation Valves Only

(Turnover System DEC Sequential No. 002)

General

1. There were no manufacturer's records or receipt records received in the turnover package. It was previously agreed with Bechtel that receipt records which include manufacturer's records would be turned over. Receipt records were missing for the following items:

Pipe Spools

OHBC-34-S618-1-1
OHBC-16-S618-1-5
OHBC-20-S618-1-5
OHBC-20-S618-1-6
OHBC-62-S618-1-1
OHBC-16-S618-1-2
OHBC-20-S618-1-7
OHBC-20-S618-1-8
OHBC-34-S618-1-2
OHBC-16-S618-1-5A
OHBC-20-S618-1-9
OHBC-20-S618-1-9A

Valves

2", S.N. 4485, Yarway
1", S.N. 4451, Yarway
2", S.N. 4484, Yarway
1", S.N. 4474, Yarway

Misc. Pipe

1" and 2" stock C.S. pipe used for drain and vent nipples.

Hangers (partially installed)

30" OHBC-20-H24
30" OHBC-33-H21
30" OHBC-16-H18

Couplings

Coupling Half, Heat No. BN02
Coupling Half, Heat No. BN37

2. No list of "As-built" drawings as was agreed to with Bechtel was in the turnover.

3. No design change requests (DCN's, FCR's) and design deviations were in the turnover.

4. Quality Control Inspection Records P-2.10 for initial hanger installation on lines OHBC-33 and 34 were not in the turnover package.

5. Quality Control Inspection Records P-2.03 for final installation of parts of hanger assemblies installed are not in the turnover.

NCR SERIAL NO: M-01-5-8-023
DATE: 3-28-78
DATE OF REV: Closed
FILE NO: 16.3.4, 16.3.6

"AS IS" NONCONFORMING CONDITION VERSUS "AS REQUIRED" CONDITION WITH REFS: (Contd)

General (Contd)

6. No hydrostatic test reports, associated drawings, or Inspection Records for either OHBC-33 and 34 carbon steel pipe from the isolation valves to the steel pipe/concrete pipe interface are in the turnover.

7. Quality Control Inspection Record P-1.00 for completed line installation is not in the turnover package.

8. We have not received documentation for the last pour in the Structure No 1 or No 2 poured March 7, 1978 which are included in the turnover.

M-618/1-6-22

1. QCIR P-1.10-FSK-M-618-1-10-1

   a. Quality Control Instruction P-1.10 requires in Activity Number 2.2 "...that the material identify (spool number, subassembly number, heat number, purchase order number, whichever is applicable) is correctly entered on the record drawing, isometric, or sketch". No record drawing, isometric or sketch is in the turnover package.

M-618/1-6-23

1. Record drawing, isometric, or sketch containing entered material identity is not in the package.

M-618/1-6-28

1. No record drawing, isometric, or sketch containing material identify is contained in the package.

M-618/1-7-20, M-618/1-7-21

1. No record drawing, isometric, or sketch containing material identify is contained in the package.

M-618/1-7-30

1. Record drawing, isometric, or sketch containing entered material identify is not in the package.

M-618/1-7-31

1. No record drawing, isometric, or sketch containing material identify is contained in the package.

M-618/1-8-29

1. No record drawing, isometric, or sketch containing material identity is contained in the package.

NCR SER NO:M-01-5-8-023
DATE OF NCR ORIG: 3-28-78
DATE OF NCR REV: Closed 11-13-79
FILE NO: 16.3.4, 16.3.6

"AS IS" NONCONFORMING CONDITION VERSUS "AS REQUIRED" CONDITION WITH REFS: (Contd)

GN-22-2

1. Should include NCR's 1099 and 1055 and check for others.

Misc. - Circulating Water and Service Water Retaining Walls
(Turnover System FACL Sequential No. 013)

1. Some of the documentation for the Service Water Retaining Wall is found in Turnover System FACL Sequential No. 010, but is not referenced in Turnover System FACL Sequential NO. 010/Turnover System FACL Sequential No. 011. It is questionable whether we have all of the documentation.

Service Water Pump Structure - Sluice Gates
(Turnover System DCA Sequential No. 602)

1. No documents were received relative to these items.

90007239

NCR SERIAL NO: M-01-5-8-023
DATE: 3-28-78
DATE OF REV: Closed 11-13-79
FILE NO: 16.3.4, 16.3.6

25. PART CA DISPOSITION, JUSTIFICATION & COMPLETION DATE:

Cooling Pond/Emergency Pond Earthwork
(Turnover System - DEC Sequential No 001)

1. Bechtel's intent in the turnover packages was not to turn over "as built" drawings, but to list the "latest revisions" of applicable drawings at the time of the turnover. Therefore, C-109, Revision 9 and C-111, Revision 10, were the latest revisions of those drawings at the time of turnover and were not listed as "as built" drawings.

   The turnover of "latest revisions" of drawings was coordinated in BCCC-3156R dated March 9, 1978.

2. All outstanding FCR's against a specification or drawing, which are applicable to Quality Control's acceptance, are identified on the appropriate Quality Control Inspection Records. Those FCR's that are retired after verification that the requested change work is complete will be turned over at the completion of the project.

3. The Canonic QA Manual was placed in the Quality Control Vault, Log No C-210-1-1.

4. In accordance with paragraph 6.2, PSP G-7.1, Receiving Documentation is to be turned over by closed purchase order. Upon completion of a purchase order, the associated records will be reviewed, indexed, page numbered, and transmitted to the Project Superintendent for his subsequent turnover to CPCo.

   Bechtel Quality Control has agreed to provide the following information to CPCo when accomplishing subsequent turnovers:

   > Purchase orders, either open or closed will be available for review, but will not be turned overy by turnover boundry. In the case of a "serialized component" within a turnover boundry, the receiving inspection plan will be recorded so as to key the client to the availability in the QC Vault of the document(s).

C-210-22-36

1. Modified Proctor ROZ-2 has been received from Pittsburgh Testing Laboratory and is on file in Quality Control Vault, Log No C-210-22-36.

C-210-22-37

1. Modified Proctors BMP-293 and 297 have been located and are indexed.

2. Modified Proctors were numbered consecutively including non-"Q" tests. The BMP's submitted were the "Q" tests only.

NCR SERIAL NO: M-01-5-8-023
DATE: 3-28-78
DATE OF REV: Closed 11-13-79
FILE NO: 16.3.4, 16.3.6

25. PART CA DISPOSITION, JUSTIFICATION & COMPLETION DATE:

(Contd from Page 7)

C-210-5-5

1. Sieve Analysis for Zone 4 gradations have been placed in this package.

Service Water Pump Structure - Wetted Surfaces Only
(Turnover System FACL Sequential No 010)

Service Water Discharge Structures
(Turnover System FACL Sequential No 011)

1. Receiving documentation to be turned over by purchase orders at a later date.

SW-2-45-Pour SWR(636.5)c'

1. Pours SWR(636.5)a' and b' are non-existent. Pour SWR(636.5)c' is a unique number for that pour.

Service Water Discharge Pipe - Pond to Isolation Valves Only
(Turnover System DEC Sequential No 002)

General

1. Receiving Records are available for review. They will be turned over in accordance with SF/PSP G-7.1, Rev 4, Section 6.2 (Aggregate Turnover) at a later date.

2. Bechtel's intent in the turnover packages was not to turn over "as built" drawings, but to list the "latest revisions" of applicable drawings at the time of the turnover.

3. All outstanding FCR's against a specification or drawing, which are applicable to Quality Control's acceptance, are identified on the appropriate Quality Control Inspection Records. Those FCR's that are retired after verification that the requested change work is complete will be turned over at the completion of the project.

4. The P-2.10 Inspection Records, (Pipe Hanger, Support, Restraint and Shock Suppressor Installation-Initial) for the three hangers involved have been opened to document the installation of the hanger lugs on the pipe. The actual installation of the hangers has not been completed, therefore, the P-2.10 IR cannot be turned over at this time.

5. The P-2.00 Inspection Record, (Pipe Hanger, Support, Restraint, and Shock Suppressor Installation-Final) cannot be opened/closed until the P-2.10 IR has been closed, therefore, the P-2.00 IR cannot be turned over at this time.

NCR SERIAL NO: M-01-5-8-023
DATE: 3-28-78
DATE OF REV: Closed 11-13-79
FILE NO: 16.3.4, 16.3.6

25. PART CA DISPOSITION, JUSTIFICATION & COMPLETION DATE:

(Contd from Page 8)

6. All the ASME pipe included in the turnover package was tested on one of the following Inspection Records.

T-1.00-618-1-1
T-1.00-618-1-2
T-1.00-618-1-3

All three of the above IR packages were forwarded to CPCo.

7. The P-1.00 Inspection Record, (Piping Completed Line Installation) has as one of its prerequisites requirements the review of the field as-built drawings. P-1.00-618-1-1, Log #10723 and P-1.00-618-1-2 Log No 13430, have been completed and were transmitted to CPCo.

8. The last pours in Service Water Discharge Structure No 1 and No 2 poured March 7, 1978 have been turned over and the problems with these packages were identified on NCR M-01-5-8-028.

M-618/1-6-22, 23 & 28, Item #1, M-618/1-7-20, 21, 30, 31, Item #1, M-618/1-8-29

Item #1

The above identified nonconforming conditions state that there are no record drawings, isometrics or sketches in these turnover packages. All of the above packages are P-1.10's or P-1.20's, initial installation IR's, and do not require a drawing to be furnished with the closed inspection record.

GN-22-2

1. In accordance with SF/PSP G-7.1 Rev 4, Section 6.5 additional records, "Nonconformances" will be turned over by volume at a later date. The NCR's included in package GN-22-2 have been removed and the turnover system sequence DEC-002 was amended to remove reference to package GN-22-2.

Miscellaneous - Circulating Water and Service Water Retaining Walls
(Turnover System FACL Sequential No 013)

1. The following is a summary of the events that took place concerning FACL-013 in order to clarify the existing situation:

   a. Bechtel Construction notified Quality Control to prepare documentation for turnover sequences FACL-010 and FACL-011, "Service Water Pump Structure" and "Service Water Discharge Structure". The reference drawings included Drawing C-98 the drawing for the Service Water Retaining Wall.

NCR SERIAL NO: M-01-5-8-023
DATE: 3-28-78
DATE OF REV: Closed 11-13-79
FILE NO: 16.3.4, 16.3.6

25. PART CA DISPOSITION, JUSTIFICATION & COMPLETION DATE:

(Contd from Page 9)

b. Bechtel Quality Control transmitted the documentation to Bechtel Construction for transmittal to CPCo on 3/14/78 turnover sequences FACL-010 and FACL-011.

c. Bechtel Construction notified Quality Control on 3/24/78 to prepare the documentation for FACL-013, "Miscellaneous Cooling Pond and River Service Water Retaining Wall".

d. On 3/24/78 QCFM-4608, Quality Control identified to construction that sequences FACL-010 and FACL-011 have been amended and that the packages previously turned over included documentation for sequences FACL-010, FACL-011 and FACL-013.

Service Water Pump Structure - Sluice Gates
(Turnover System DCA Sequential No 602)

1. The sluice gates in the service water pump structure are not complete. The documentation on the sluice gates will be turned over when the work has been completed.

34. METHOD OF PART CA VERIFICATION:

Reviewed C-210-5-5, C-210-1-1, C-210-22-36, C-210-22-37, T-1.00-618-1-1, 2, and 3; P-1.00-618-1-1, Log No 10723, P-1.00-618-1-2, Log No 13430, test ROZ-2; and letters QCFM-4608 dated March 24, 1978; QCFM-4461 dated April 6, 1978; QCFM-4671 dated April 7, 1978; GLR-04-78-185 dated April 11, 1978; 105FQA78 dated May 25, 1978; GLR-273 dated May 30, 1978; QCFM-4846 dated May 30, 1978; 112FQA78 dated June 2, 1978; QCFM-4903 dated June 9, 1978; GLR-306 dated June 13, 1978; 137FQA78 dated June 20, 1978; QCFM-4947 dated June 27, 1978; IOM 0-1835 dated June 30, 1978; GLR-345 dated July 10, 1978; 207FQA78 dated August 31, 1978; QCFM-5247 dated September 13, 1978; LAD: 461 dated September 25, 1978; LAD: 471 dated October 2, 1978.

NCR SER NO: M-01-5-8-023
DATE OF NCR ORIG: 3-28-78
DATE OF NCR REV: Closed 11-13-79
FILE NO: 16.3.4, 16.3.6

ROOT CAUSE AND NATURE OF PROCESS AND INSPECTION PROCESS CORRECTIVE ACTION:

To determine the root cause of this nonconformance and develop corrective actions to be taken, an indepth review of the items included in the dike turnover nonconformances was performed.

This review resulted into the categorization of the problems into four areas.

1. Missing verification documents in the Quality Assurance Records.
2. Missing documents in the turnover packages.
3. Omissions/incomplete records and typo's in the Quality Assurance Records.
4. Failure to implement specification and inspection requirements.

The root cause of items 1, 2 and 3 is that an inadequate review was performed by the responsible QCE's implementing and reviewing the items, resulting in errors in the documentation turnover packages and that no procedure for turnover was available to control this activity. The root cause for item 4 is as described, in that Construction and Quality Control failed to implement the instructions properly, or misinterpreted the intent of the instructions as presented in the specifications and QCI's.

Quality Control Engineers have been given detailed instruction by the PFQCE on the importance of the Level II review and the seriousness of an improper review and its impact on the credibility of the Quality Assurance Records being turned over. Guidelines have been (i.e., checklists, etc.) prepared for the Level II's use to assure that a complete review is being performed as required by SF/PSP G-6.1.

In addition, Quality Control is performing an indepth audit of all Quality Assurance records to resolve any possible problems prior to turnover.

Since the original turnover in March, Bechtel and CPCo have held several joint meetings in order to identify and resolve problems and procedures to eliminate misunderstandings with future turnovers. QAR SD-71 dated 3/16/78 request that a procedure be developed to control turnover of documentation. Meeting Notes dated 4/25/78 (T. Cooke to J. Newgen, serial 3038) summarizes a meeting held on 4/13/78 with Bechtel and Consumers personnel in attendance. This meeting resulted in twelve (12) action items which will also aid in preventing recurrence of these types of problems.

Each problem identified in this nonconformance report has been corrected by the individuals or organization responsible for the errors. Each QCE that is still employed at the jobsite and was involved with the errors is aware of the errors made. This action assures that the type and extent of the errors are known by the responsible individuals.

X

Consumers Power Company

NONCONFORMANCE REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

6. PROJECT NAME: Midland 1 & 2	7. NONCONFORMING PART NO: NA	8. NONCONFORMING PART NAME: NA	1. NCR SERIAL NO: M-QA-78-085
9. SERIAL NUMBER: NA	10. RESP. CONTRACTOR NO: (A) Bechtel Proj Engr (B) Bechtel Const & QC	11. AREA/DESC. OF NC: Concrete Pours: (1) A(642.58)c (2) SDI(657)b	2. DATE: 10-20-78
			3. DATE OF REV: Closed 11-9-79
			4. REF TO: 16.3.1, 16.3.4, 16.3.6

12. AS IS NONCONFORMING CONDITION VIOLATES AS REQUIRED CONDITION (CITE REF):

See page 3.

5. DISTRIBUTED ACTION COPY:

LADreisbach

INFO COPY:

WLBarclay	JMHlandin
WRBird	DBMiller
TCCooke(2)	WGMoring
JLCorley	LEDavis
LHCurtis	ERumbaugh
RHermeston	JARutgers
SHHowell	DATaggart
DRJohnson	
GSKeeley	
BWMarguglio	

21. CA RECOMMENDED FOR PART 21:

A. Do not use concrete aggregate that does not meet the gradation requirements (thus requiring two retests) until the retests have been evaluated. This should be implemented immediately until further resolution. (Contd on Page 4)

DESIGN/PROJECT ENG. DISPOSITION REQUIRED [X] NOT REQUIRED [ ]

14. HOLD TAGS APPLIED: YES [ ] NO [X] REMARKS, LOCATION & DATE OF HOLD TAGS APPLIED: NA

15. IS PROCESS CA REQUIRED: YES [X] NO [ ] IF NO, ENTER JUSTIFICATION BELOW:

16. DOES NC AFFECT A-LIST ITEM: YES [X] NO [ ]

17. IS NC REPORTABLE PER 10.55(e): YES [ ] NO [X]

18. IS NC REPORTABLE PER PART 21: YES [ ] NO [X]

19. IF YES, DATE & TIME OF REPORT TO NRC: NA

20. IF YES, WAS HAZE REPORT TO NRC: NA

21. IF YES, NAME OF NRC OFFICIAL TO WHOM REPORTED: NA

22. NCR CLASSIFIED BY: /s/ Donald E Horn 10-20-78

23. VERIFICATION ISSUED BY: 11-3-78

TO ESTABLISH CA COMPLETION DATE

24. SUPERVISOR'S SIGNATURE/DATE: NA

25. ROOT CA DESCRIPTION, JUSTIFICATION & COMPLETION DATE:

A. Bechtel QA stated that the method of sampling, testing and evaluating concrete aggregate as described in Specification 7220-C-208 and REM 1415 is not contrary to 10CFR50, Appendix B, Criterion XV. No corrective action needed.

B. (1) & (2) Same as Block 13 above.

26. DESIGN/PROJECT ENG. APPR. DISP.: A. NA B. (1)&(2) See NCR's 1408 & 1419

27. NQA ENG. APPR. DISP.: /s/ RMWheeler 10-20-78 11/9/79

28. [illegible]: NA

29. [illegible]: NA

30. FABRICATOR, REQ. APPR. DISP.: NA

31. [illegible]: NA

32. [illegible] REQ. APPR. DISP.: NA

33. CA APPR. REQ. TO DISPOSITION DISP.:

34. REASON IF PART CA REQUIRED:

A. NA - Reviewed letter LAD-544, Action Item 471.

B. (1) & (2) Reviewed NCR's 1408 & 1419.

90007245

35. REQ. IF ENG. DISP. FOR PART CA DISPOSITION VERIFICATION:

A. NA - Letter LAD-544, Action Item 471

B. (1)&(2) See NCR's 1408 & 1419

36. REQ. VERIFICATION PART CA & HOLD TAG REMOVAL DATE: Donald E. Horn 11/9/79

37. CA CLOSED BY: DATE & TIME IN (DOCUMENT): Donald E. Horn 11/9/79

Document Control: 1141-00211-03004-73*10*03.
1141-10150-03004-73*10*03

Consumers Power Company

NONCONFORMANCE REPORT
PROCESS CORRECTIVE ACTION

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

NCR SERIAL NUMBER M-01-4-8-6

38. CA ASSESSMENT OF ROOT CAUSE(S):

A. "Unknown, to be determined."

B. (1) & (2) "Unknown, to be determined."

39. ACTUAL ROOT CAUSE(S), IF DIFFERENT FROM ABOVE (TO BE COMPLETED BY ORG. RESPONSIBLE FOR PROCESS CA):

A. NA

B. (1) & (2) There was a small time delay in notification.

40. PROCESS CA RESULTED FROM:

DESIGN [X] FABRICATION [ ] CONSTRUCTION [X] PROCUREMENT [ ] INSPECTION [X]

OTHER

41. CA RECOMMENDATION FOR PROCESS CA:

A. "Unknown, to be determined."

B. (1) & (2) "Unknown, to be determined."

42. PROCESS CA TO BE TAKEN BY ORG(S) CITED IN BLOCK 41 & DATE OF COMPLETION:

A. NA

B. (1) & (2) QC initiated the following action.
When the aggregate retest fails, production is immediately halted and the aggregate is rejected. The batch plant QCE immediately calls the field and rejects the trucks enroute and trucks being discharged at that time.

43. METHOD OF PROCESS CA VERIFICATION:

Reviewed letter LAD-544, Action Item 471.

90007246

44. ORG. OF ORG. RESPONSIBLE FOR PROCESS CA VERIFICATION COMPLETION:

Refer to Letter LAD-544, Action Item 471

45. PROCESS CA COMPLETION VERIFIED BY/DATE:

Donald E. Horn 11/9/79

NCR SERIAL NO: M-01-4-8-085
DATE: 10-20-78
DATE OF REV: Closed 11-9-79
FILE NO: 16.3.1, 16.3.4, 16.3.6

12. "AS IS" NONCONFORMING CONDITION VERSUS "AS REQUIRED" CONDITION WITH REFS:

A. 10CFR50, Appendix B XV Nonconforming Materials, Parts or Components states in part:

"1. Measures shall be established to control materials, parts or components which do not conform to requirements in order to prevent their inadvertent use for installation."

REM C-1415 states:

"Project Engineering has reviewed Spec 7220-C-208(Q) Rev. 13 Section 7.3.1.2 and provides the following clarification:
When any of the following conditions occur, retests will be required:
1) Gradation passes----------Moving avg fails
2) Gradation fails by 2% or less--------Moving avg fails
3) Gradation fails by more than 2%------Moving avg passes
4) Gradation fails by more than 2%------Moving avg fails

Two retests are required, and acceptance shall be as follows:
a) If both retests pass, material is acceptable regardless of the M.A. (Moving Average).
b) If either or both retests fail by 2% or less and the M.A. is within spec limits, then material is acceptable.
c) If either or both retests fail by 2% or less and the M.A. is out of spec limits, then material is rejected.
d) If either retest fails by more than 2%, then the material is rejected.

<u>Rejection of material is to be made only after retests have been made and failed to comply with specification requirements.</u>

For the case where the gradation fails by 2% or less and the moving average is within specification limits, the material is acceptable with no retests required."

(A) Contrary to 10CFR50 Appendix B Section XV (1), the underlined paragraph above allows the use of concrete aggregate that is indeterminate (thus requiring two retests) in concrete production prior to the results of the retests being known.

(B) 1. Contrary to REM C-1415, the first sand gradation (UST #1911) was taken 7/6/78 for concrete production on 7/7/78 and had 69% passing the #30 sieve thereby exceeding the allowable limit by 9%. Bechtel QC was notified of this test failure at 7:00 A.M. on 7/7/78. Two retests were taken (UST #1914 and 1915) at 7:20 A.M. on 7/7/78. Retest (UST #1914) had 68% passing the #30 sieve thereby exceeding the allowable limit by 8%. Bechtel QC was notified of this test failure at 8:00 A.M. on 7/7/78. Per REM C-1415 d the material should have been rejected at this time. However, concrete was batched at 8:27 A.M. for pour A(642.58)c.

NCR SERIAL NO: M-01-4-8-085
DATE: 10-20-78
DATE OF REV: Closed 11-9-79
FILE NO: 16.3.1, 16.3.4, 16.3.6

12. "AS IS" NONCONFORMING CONDITION VERSUS "AS REQUIRED" CONDITION WITH REFS: (Contd)

(B) 2. Contrary to REM C-1415, the first 1½" aggregate gradation (UST #1965) was taken 7/17/78 for concrete production on 7/18/78 and had 89% passing the 1½" sieve thereby exceeding the allowable limit by 1% and the moving average also failed by 1%. Bechtel QC was notified of this test failure at 7:00 A.M. on 7/18/78. Two retests were taken (UST #1972 and UST #1973) at 7:30 A.M. on 7/18/78. Retest (UST #1973) had 59% passing the 1" sieve thereby exceeding the allowable limit by 4% and 18% passing the 3/4" sieve thereby exceeding the allowable limit by 3%. Bechtel QC was notified of this test failure at 8:50 A.M. on 7/18/78. The material was then rejected, consequently concrete had been batched at 8:49 A.M. for pour SWI(567)b' and was received at the placement at 9:04 A.M. No effort was made to reject the concrete prior to placement. It should also be noted that Quality Control Corrective Action Reports were not initiated to prevent recurrence for (B) 1 or (B) 2.

13. QA RECOMMENDATION FOR PART CA: (Contd)

A. (Contd)

Have Project Engineering determine the gradation tolerances that would allow the batching of concrete even though the gradation requirements have not been met and revise the specification accordingly.

B. (1) On NCR 1408 for pour A(642.58)c, Project Engineer has dispositioned the non-conforming concrete aggregate "Use-As-Is".

(2) On NCR 1419 for pour SWI(657)b', Project Engineer has dispositioned the non-conforming concrete aggregate "Use-As-Is".

Start Up System: 0-EAA

Consumers Power Company

NONCONFORMANCE REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

6. PROJECT NAME: Midland	7. NONCONFORMING PART NO: NA	8. NONCONFORMING PART NAME: Lock Washers (use)	1. NCR SERIAL NO: M-01-4-9-070
			2. DATE: 7-18-79
9. SERIAL NUMBER: NA	10. ORG. CONDITION BY: BPCo Construction	11. AREA/LOC. OF NC: Service Water Bldg	3. DATE OF REV: Closed 11-16-79
			4. ITEM NO: 16.3.4

12. AS OF NONCONFORMING CONDITION (STATE AS REQUIRED CONDITION WITH REF):

FSK-JO-0008(Q) Rev 1, "Std. Assembly Details for Transmitters on Standard Floor Mounted Stands" calls for manifold mountings, "with (4) ¼" dia 20 UNC x 2" Lg hex bolts with flat washers".

Contrary to the above, the following instruments have been mounted using flat washers and lock washers, split ring type:

1) OPDIT - 1830
2) OPI - 1825
3) OPI - 1821
4) OPDIT - 1827
5) OPI - 1822

5. DISTRIBUTION

ACTION COPY:

LADreisbach

INFO COPY:

WLBarclay, JMilandin, WRBird, DBMiller, TCCooke, WGMoring, JLCorley, JFNewgen, RHermeston, RASimanek, SHHowell, DATaggart, DRJohnson, GSKeeley, BWMarguglio, PAMartinez

13. CA RECOMMENDATION FOR PART 12:

1. Remove split ring washers from the mounting assembly.
2. Inspect fill installed manifolds for improper installations.
3. Obtain proper installation requirements of the bolt and washer assemblies from [X] Project [ ] Engineering to assure proper attachment of the manifolds to the support stands.

DESIGN/PROJECT ENG. DISPOSITION REQUIRED [X] NOT REQUIRED [ ]

14. HOLD TAGS APPLIED: YES [ ] NO [X] INDEX, LOCATION & TYPE OF HOLD TAGS APPLIED: NA

15. IS PROCESS CA REQUIRED: YES [X] NO [ ] IF NO, OTHER JUSTIFICATION BELOW:

16. DOES NC AFFECT A-LIST ITEM: YES [X] NO [ ]

17. IS NC REPORTABLE PER 50.55(e): YES [ ] NO [X]

18. IS NC REPORTABLE PER PART 21: YES [ ] NO [X]

19. IF YES, DATE & TIME OF REPORT TO NRC: NA

20. IF YES, WHO MADE REPORT TO NRC: NA

21. IF YES, NAME OF NRC OFFICIAL TO WHOM REPORTED: NA

22. NCR GENERATED BY: [signature]

23. PROBLEM ANALYSIS REVIEWED BY: 8-1-79

TO ESTABLISH CA CONCLUSION DATE

24. SUPERVISOR'S SIGNATURE/DATE: DRKeating 7-18-79

25. PART CA DISPOSITION, VERIFICATION & CONCLUSION DATE:

See LAD-1194.

26. DESIGN/PROJECT ENG. APPR. DISP.: NA	27. QAD ENG. APPR. DISP.: NA	28. MANAGEMENT ENG. APPR. DISP.: NA	29. ENG. OF REC. REQ. FOR S/R: See LAD-1194
30. PAB/CONST. ENG. APPR. DISP.: NA	31. ENG. OF REC'T GROUP APPROV. DISPOSITION: NA	32. FOR PARTS NCD - PLT. REPT. ENG. APPR. DISP.: NA	33. QA APPR. ENG. TO DOCUMENT DISP.: [signature]

34. VERIFICATION OF PART CA VERIFICATION:

Visual, SWIS only (See LAD-1194).

90007249

35. ENG. OF REC. DISP. FOR PART CA RESTORATION DOCUMENTATION: See LAD-1194	36. ENG. VERIFIED PART CA & HOLD TAG REMOVAL DATE: [signature] 11-16-79	37. QA CLOSED OF DATE: (PART & PROCESS CA COMPLETE): [signature] 16-16-79

Document Control - (1141-10152-13106-73*10*03)

Consumers Power Company

NONCONFORMANCE REPORT
PROCESS CORRECTIVE ACTION

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

N-01-4-9-070

NCR SERIAL NUMBER: _____

38. QA ASSESSMENT OF ROOT CAUSE(S):

Unauthorized use of lock washers on Q-hardware.

39. ACTUAL ROOT CAUSE(S), IF DIFFERENT FROM ABOVE (TO BE COMPLETED BY ORG. RESPONSIBLE FOR PROCESS CA):

See LAD-1194.

40. PROCESS CA ADDRESSED FROM:

DESIGN [ ] FABRICATION [ ] CONSTRUCTION [X] PROCUREMENT [ ] INSPECTION [ ]

OTHER _____

41. QA RECOMMENDATION FOR PROCESS CA:

Take action to avoid further occurrence of improper manifold installation.

42. PROCESS CA TO BE TAKEN BY ORG(S) CITED IN BLOCK 41 & DATE OF COMPLETION:

See LAD-1194.

90007250

43. METHOD OF PROCESS CA VERIFICATION:

LAD-1194, discussion with BPCo QC concerning I-1.10 and proposed I-1.40 Inspection Plan.

44. SIG. OF ORG. RESPONSIBLE FOR PROCESS CA VERIFICATION COMPLETION:

See LAD-1194

45. PROCESS CA COMPLETION VERIFIED BY QA:

[illegible] 16 NOV 89

CONSUMERS POWER COMPANY
RECEIVED
NOV 13 1979
FIELD QUALITY ASSURANCE
MIDLAND, MICHIGAN

Bechtel Power Corporation

Post Office Box 2167
Midland, Michigan 48640

November 9, 1979

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

Attention: J. L. Corley

Job 7220 Midland Project
CPCo NCR M-01-4-9-070
Complete Response
LAD-1194 Action Item-S-7

Dear Mr. Corley:

The subject NCR cited concerns over the installation of instrument manifolds utilizing split ring lock washers and flat washers in lieu of flat washers alone as is called for on the drawings.

The split ring washers have been removed from the mounting fasteners for the instrument manifolds identified on the subject NCR. It is noted that Bechtel QC inspection had not and has not been performed on the mountings in question. These and similar mountings will be inspected as part of the normal QC verification process.

The mounting of the instrument manifolds utilizing fasteners with flat washers is considered adequate instructions. The fasteners are to be installed and ran down using good workmanship practice.

The necessity to install the manifolds using only the material specified in the drawing was reiterated to the personnel responsible for the subject installations.

This is considered a complete response to the subject NCR.

Very truly yours,

L A Dreisbach
L. A. Dreisbach
Project Quality Assurance
Engineer

X JLC	
X DRK	DRK
RCW	
PRK	
DDB	
X MFC	
QE	
FILE	

LAD/WJC/bss

cc: W. Bird
B. Marguglio

90007251

Start Up System: ABA

Consumers Power Company

NONCONFORMANCE REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

6. PROJECT NAME:	7. NONCONFORMING PART NO:	8. NONCONFORMING PART NAME:	1. NCR SERIAL NO: M-01-0-0-076
Midland	1-ELB M631 Sh-1 FW-18	Field Weld	2. DATE: 7-27-79
9. SERIAL NUMBER: NA	10. ORG. CONDITION NO: Bechtel QC	11. AREA/LOC. OF NC: NA	3. DATE OF REV: Closed - 11/13/79
			4. REF NO: 16.3.6

12. AS IS NONCONFORMING CONDITION VERSUS "AS REQUIRED" CONDITION WITH REF:

Paragraph NC-5320, Radiographic Acceptance Standards of ASME Boiler & Pressure Vessel Code 74-76 states in part, "Welds that are shown by radiography to have any of the following types of discontinuities are unacceptable. (a) Any type of crack or zone of incomplete fusion or penetration".

Contrary to the above, view 42-56 contains lack of fusion at location 48. This weld defect was not noted during Bechtel's review, therefore, not rejected.

5. DISTRIBUTION

ACTION COPY:

LADreisbach

INFO COPY:

WLBarclay, JFNewgen, WRBird, RASimanek, TCCooke, DATaggart, JLCorley, RHermeston, SHHowell, DRJohnson, GSKeeley, BWMarguglio, JMilandin, DBMiller

13. QA RECOMMENDATION PER PART QA:

1. Reject film No 42-56 and rework accordingly.
2. Review 100% of radiographic film accepted during the month of May 1979 for similar discrepancies.

DESIGN/PROJECT ENG. DISPOSITION REQUIRED [ ] NOT REQUIRED [X]

14. HOLD TAGS APPLIED: YES [ ] NO [X] LOCATION, LOCATION & DATE OF HOLD TAGS APPLIED: NA

15. IS PROCESS QA REQUIRED: YES [ ] NO [X] IF SO, ENTER JUSTIFICATION BELOW:

This is an isolated occurrence and, as such, no process corrective action is indicated at this time.

16. DOES NC AFFECT A-LIST ITEM: YES [X] NO [ ]

17. IS NC REPORTABLE PER 50.55(e): YES [ ] NO [X]

18. IS NC REPORTABLE PER PART 21: YES [ ] NO [X]

19. IF YES, DATE & TIME OF REPORT TO NRC: NA

20. IF YES, WHO MADE REPORT TO NRC: NA

21. IF YES, NAME OF NRC OFFICIAL TO WHOM REPORTED: NA

22. NCR ORIGINATED BY: R.E. Ostrowski

23. VENDOR REPLY REQUIRED BY: 8-10-79

TO ESTABLISH QA COMPLETION DATE

24. SUPERVISOR'S SIGNATURE/DATE: DRKeating 7-27-79

25. PART QA DISPOSITION, JUSTIFICATION & COMPLETION DATE:

1. Indication in question repaired, radiographed, and found acceptable. Bechtel Report #1437 (10-23-79)
2. Radiographic film for month of June, 1979 were re-reviewed by Bechtel. (See Bechtel letter LAD 1060)

26. DESIGN/PROJECT SIG. AUTH. DISP.:	27. PMO SIG. AUTH. DISP.:	28. PROCUREMENT SIG. AUTH. DISP.:	29. SIG. OF SUB. AUTH. (A-E ONLY):
N/A	N/A	N/A	Bechtel Letter LAD: 1060
30. FAB/CONST. SIG. AUTH. DIS. DISP.: Bechtel Letter LAD: 1060	31. SIG. OF TEST GROUP MGMT. CONDITION: N/A	32. PER MAJOR MOD - PLT. SUPT. SIG. AUTH. DISP.: N/A	33. QA AUTH. SIG. TO DISCONT DISP.: N/A

34. VERIFIED IF PART QA JUSTIFICATION:

1. Radiograph of repaired area reviewed and found to be satisfactory.
2. Additional sample of film for June, 1979 reviewed and found to be satisfactory.

35. SIG. IF SIG. REQ. FOR PART QA SUSPENDING INVESTIGATION:	36. SIG. (PERSON) PART QA & HOLD TAG REMOVAL DATE:	37. QA SIGNED FOR CLOSE (PART & PROCESS QA COMPLETE):
Bechtel Letter LAD: 1060	R.E. Ostrowski 11-13-79	R.E. Ostrowski 11-13-79

90007252

Consumers Power Company

NONCONFORMANCE REPORT
PROCESS CORRECTIVE ACTION

PROJECTS, ENGINEERING AND CONSTRUCTION
QUALITY ASSURANCE DEPARTMENT
M-01-9-9-076
NCR SERIAL NUMBER:

38. QA ASSESSMENT OF ROOT CAUSE(S):

NA

39. ACTUAL ROOT CAUSE(S), IF DIFFERENT FROM ABOVE (TO BE COMPLETED BY ORG. RESPONSIBLE FOR PROCESS QA):

NA

40. PROCESS QA REQUIRED FROM: NA

DESIGN ☐ FABRICATION ☐ CONSTRUCTION ☐ PROCUREMENT ☐ INSPECTION ☐

OTHER

41. QA RECOMMENDATION FOR PROCESS QA:

NA

42. PROCESS QA TO BE TAKEN BY ORG(S) CITED IN BLOCK 41 & DATE OF COMPLETION:

NA

43. METHOD OF PROCESS QA VERIFICATION:

NA

90007253

44. SIG. OF ORG. RESPONSIBLE FOR PROCESS QA REQUIRED COMPLETION:

NA

45. PROCESS QA COMPLETION VERIFIED BY/DATE:

NA

CONSUMERS POWER COMPANY
RECEIVED
AUG 14 1979
FIELD QUALITY ASSURANCE
MIDLAND, MICHIGAN

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

Bechtel Power Corporation

Post Office Box 2167
Midland, Michigan 48640

August 14, 1979

Job 7220 Midland Project
CPCo NCR M01-9-9-076
Complete Response
LAD 1060 Action Item S-14

Dear Mr. Corley;

The subject NCR identified that field weld 1-ELB M631 Sh. 1 FW 18 had been previously accepted by Bechtel QC with a rejectable lack of fusion defect located at Station #48.

Bechtel QC has evaluated the reported problem with the following results:

a) During the original review of the subject radiograph, the linear type indication was not noted on the review form.

b) Due to the conflict of interpretation the area in question will be repaired as necessary.

c) A 100% review of the radiographic film accepted during the month of June 1979 will be conducted by August 17, 1979 for similar conditions. Any discrepancies noted will be corrected in accordance with the normal Bechtel programs. For information the reference to the month of May in Item 2, Block 13 of the subject NCR should be June.

I believe this addresses all of your concern expressed in the subject NCR. Should you have additional questions, please contact Gene Smith of my office.

LADreisbach
L. A. Dreisbach
Project Quality Assurance
Engineer

JLC	
DRK	DRK
RGW	
PRK	
DDB	DDB
KKO	
QE	
FILE	

LAD/GS/vmm

cc: W. Bird
B. Marguglio
Document Control (1141 - 73 F10 X 03)

90007254

X

Start Up System: 1-PBA 1-PGB 2-PBA 2-PGB 1-PGA 1-PBB 2-PGA 2-PBB

Consumers Power Company

NONCONFORMANCE REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

6. PROJECT NAME: Midland 1 & 2	7. DESCRIPTIONS PART NO: See Block 12	8. DESCRIPTIONS PART NAME: Welding Procedure Specification	1. NCR SERIAL NO: N-01-4-79-089
			2. DATE: 8-23-79
9. SERIAL NUMBER: NA	10. ORG. CONTROLLING JC: Bechtel Construction Bechtel Quality Control	11. AREA OR LOC. OF JC: 614' Elevation Aux Bldg	3. DATE OF DIV: Closed 11-6-79
			4. FILE NO: 16.3.4, 16.3.6

12. AS IF NONCONFORMING CONDITION EXISTS "AS REQUIRED" CONDITION WITH REFS:

1. Bechtel Welding Procedure Specification (WPS) P1-A-Lh (structural) is prequalified for joint details in accordance with AWS D1.1-76 and must be used in conjunction with General Welding Standard GWS-Structural. GWS-Structural lists the prequalified joint details acceptable to use.
2. Paragraph 2.6.1 of AWS D1.1-76 states in part, "Joints meeting the following requirements are designated as prequalified:
   (1) Conformance with the details specified in 2.7 through 2.14 and 10.13".

(Contd on Page 3)

5. DISTRIBUTION

ACTION COPY: LADreisbach

INFO COPY: WLBarclay, WRBird, TCCooke(2), JLCorley, RHermeston, SHHowell, DRJohnson, GSKeeley, BWMarguglio, PAMartinez, JMilandin, DBMiller, WGMoring, JFNewgen, RASimanek, DATaggart

13. CA RECOMMENDATION FOR PART CA:

1. Qualify a welding procedure to allow plug/slot and circle (circumferential) fillet welds on thin metals.
2. Repair/rework all plug and circumferential fillet welds as necessary to ensure compliance with qualified procedure.

DESIGN/PROJECT ENG. DISPOSITION REQUIRED [X] NOT REQUIRED [ ]

(Contd on Page 3)

14. HOLD TAGS APPLIED: YES [ ] NO [X] TAGGED, LOCATION & TYPE OF HOLD TAGS APPLIED: NA

15. IS PROCESS CA REQUIRED: YES [X] NO [ ] IF NO, ENTER JUSTIFICATION BELOW:

16. DOES TO AFFECT A-LIST ITEM: YES [X] NO [ ]

17. IS NC REPORTABLE PER 50.55(e): YES [ ] NO [X]

18. IS NC REPORTABLE PER PART 21: YES [ ] NO [X]

19. IF YES, DATE & TIME OF REPORT TO NRC: NA

20. IF YES, AND WAS REPORT TO NRC: NA

21. IF YES, NAME OF NRC OFFICIAL TO WHOM REPORTED: NA

22. NCR DESIGNATED BY:

23. VERIFICATION REQUIRED BY: 9-6-79 TO ESTABLISH CA COMPLETION DATE

24. INSPECTOR'S SIGNATURE/DATE: 8-23-79

25. PART CA DISPOSITION, JUSTIFICATION & COMPLETION DATE:

September 27, 1979 - Welding QCIR #C304-288W documentation reviewed, corrected and updated as required in accordance with SF/PSP G-7.1. Verified on September 28, 1979.
November 1, 1979 - Reviewed training session memos on file in PFQCE's office - Reviewed LWQCE and Project Engineering response to Bechtel QA.
November 5, 1979 - See letter LAD-1170.

26. TESTING/PROJECT ENG. APPR. DISP.: NA	27. PMO ENG. APPR. DISP.: NA	28. PROCUREMENT ENG. APPR. DISP.: NA	29. ENG. IF ADD. DISP. REQ. N.A.: See Letter LAD-1170
30. FAB/CONST. ENG. APPR. DISP. DISP.: See Letter LAD-1170	31. ENG. IF CONT GROUP ACTION. REQUIRED: NA	32. PMO MAINT ENG - PLT. ENGR. ENG. APPR. DISP.: NA	33. MAINT. ENG. IF DISPOSITION DISP.:

34. SCOPE OF PART CA VERIFICATION:

Reviewed QCIR #C304-288W documentation package revisions.

35. ENG. IF ADD. DISP. FOR PART CA VERIFICATION COMPLETION: See Letter LAD-1170	36. ENG. VERIFICATION PART CA & HOLD TAG REMOVAL DATE: 11/6/79	37. QA CLOSED BY/DATE: PART & PROCESS CA COMPLETE: 11/6/79

Document Control (1141 - 05228 - 31441)

90007255

Consumers Power Company

NONCONFORMANCE REPORT
PROCESS CORRECTIVE ACTION

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

NCR SERIAL NUMBER: M-01-4-9-089

18. QA ASSESSMENT OF ROOT CAUSE(S):

Unknown, to be determined.

19. ACTUAL ROOT CAUSE(S), IF DIFFERENT FROM ABOVE (TO BE COMPLETED BY ORG. RESPONSIBLE FOR PROCESS QA):

See letter LAD-1170.

20. PROCESS QA REQUIRED FROM:

DESIGN [X] FABRICATION [ ] CONSTRUCTION [X] PROCUREMENT [ ] INSPECTION [X]

OTHER

21. QA RECOMMENDATION FOR PROCESS QA:

Unknown, to be determined.

22. PROCESS QA TO BE TAKEN BY ORG(S) CITED IN BLOCK 21 & DATE OF COMPLETION:

See letter LAD-1170 - November 2, 1979.

23. METHOD OF PROCESS QA VERIFICATION:

Reviewed and verified corrected QCIR #C304-288W.
Informal discussion with LWQCE on individual training of SF/PSP G-7.1.

90007256

24. SIG. OF ORG. RESPONSIBLE FOR PROCESS QA VERIFYING COMPLETION:

SEE letter LAD-1170 Nov 2, 1979

25. PROCESS QA COMPLETED VERIFIED BY/DATE:

11/6/79

NCR SERIAL NO: M-01-4-9-089
DATE: 8-23-79
DATE OF REV: Closed 11-6-79
FILE NO: 16.3.4, 16.3.6

12. "AS IS" NONCONFORMING CONDITION VERSUS "AS REQUIRED" CONDITION WITH REFS:

(Contd from Page 1)

2. (Contd)

   Paragraph 2.7 through 2.14 of AWS D1.1-76 specifies the allowable prequalified joint designs.

3. Paragraph 2.7.1.2 of AWS D1.1-76 states in part, "The maximum fillet weld size permitted along edges of material shall be:

   (1) The thickness of the base metal, for metal less than ¼ inch (6.4mm) thick..."

4. Drawing C195(Q) Rev 5 specifies welding of electrical equipment to embedments will be fillet welded completely around the hole circumference unless noted otherwise on vendor documents. FCR C-1991 dated 7/10/79 was issued to Drawing C197(Q) Rev 9 to include the similar requirements of Note #13 in Drawing C195(Q).

5. Reference welding QCIR C304-288W specifies plug welding using WPS P1-A-Lh (Structural), Rev 0.

Contrary to this, electrical equipment (1A05, 1A06, 2A05 and 2A06) classified as Seismic Category I has been installed by plug welding and circumferential fillet welding on 16 gauge carbon steel to embeds at elevation 614' - Aux Bldg (location 5.3 - 7.8 and H-Kc Line) using WPS P1-A-Lh (Structural).

Welding of these compartments does not comply with required weld thickness on prequalified fillet welds or prequalified joint design of plug welding as specified in paragraphs 2.7 and 2.8 respectively of AWS D1.1-76, therefore, WPS P1-A-Lh (Structural) is not prequalified for welding the electrical cabinets to the embedments.

13. QA RECOMMENDATION FOR PART CA:

(Contd from Page 1)

3. Retest and/or qualify welders to qualified procedure acceptable for plug and/or circumferential welding.

4. Take corrective action as required to preclude and alleviate referenced deviations.

5. Reinspect all referenced compartment installations. Document all discrepancies found.

6. Determine why the supports were not installed according to design drawings and take action to preclude recurrence.

7. Re-evaluate stress calculations using "as-built" installation configuration and provide assurance that all requirements of Seismic Category I are adequate and acceptable.

Bechtel Power Corporation

Post Office Box 2167
Midland, Michigan 48640

November 2, 1979

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

Attention: J. L. Corley

CPCo NCR M-01-4-9-089 and
NRC Item of Noncompliance 79-20-01
Complete Response
LAD 1170 Action Item S-044
S-042(c)

Dear Mr. Corley:

The subject CPCo NCR and NRC Item of Noncompliance identified errors and inconsistencies in QC inspection records of the welds anchoring the 4.16 KV switch gear to embeds in the floor.

Attached is the results of Bechtel's evaluation and actions taken relative to the subject items. Although the attachment is formatted as the response to the NRC, it is intended to also be the complete response to the subject NCR.

Should you have additional questions, please contact Gene Smith of my office.

Very truly yours,

L A Dreisbach

L. A. Dreisbach
Project Quality Assurance
Engineer

LAD/GS/sjc

Attachment

cc: W. Bird
B. Marguglio

MLC	
CRK	
RCW	
[illegible]	
[illegible]	
[illegible]	
GS	
FILE	

90007258

Consumers Power Company Response to the Notice of Violation
Described in NRC Inspection Report
No 50-329/79-20 and No 50-330/79-20

A. Lack of control for special processes relative to welding activities (329/79-20-01; 330/79-20-01)

1. Description of Noncompliance

Appendix A of Report No 50-329/79-20 and 50-330/79-20 provides the following:

"1. 10 CFR 50, Appendix B, Criterion IX, requires, in part, that measures shall be established to assure that special processes, including welding are controlled.

Paragraph 5.2 of procedure 9-1 of the Consumers Power Company Quality Assurance Program Topical Report (CPC QA PTR) CPC-1 states, in part, 'Special processes are accomplished with written process sheets, procedures, checklists or equivalent which describe parameters to be met during the performance of the special process . . .'

Contrary to the above, the following discrepancies identified relative to the anchoring of safety related 4.16KV switchgear indicate that welding activities may not have been adequately controlled; these documents went through several reviews and were approved.

a. Quality Control Inspection Record (QCIR) #C304-288W specifies that the switchgear be anchored to the embeds by plug welds; Note 13 on the installation drawing C-195(Q) requires fillet

90007259

welds. This indicates that the manufacturer's recommendations were not followed.

b. The QCIR specifies the use of Weld Procedure Specification (WPS) P1-ALh (structural) for plug welds; this WPS is prequalified to AWSD1.1-76 requirements which excludes 7/8" diameter plug welds. This indicates that an incorrect WPS was specified and approved.

c. The inspection records indicate that "plug welds" were inspected and determined acceptable.

d. On August 23, 1979, subsequent to the NRC inspection, corrections were made to the above record without the benefit of procedural requirements.

e. Visual inspection of the welds and discussion with the various site personnel indicate that they may be fillet welds."

2. Response:

It is our evaluation that Bechtel Quality Control Inspection Record (QCIR) C304-288W erroneously referred to the subject welds as "plug" welds. Reinspection by Bechtel QC and evaluation by Bechtel Project Engineering confirmed the welds to be circumferential fillet welds as required. Since the inspection criteria (i.e., 100% visual inspection) are the same in either case, the welds are acceptable as is.

Bechtel Welding Procedure (WPS) P1-A-LH-Structural used in conjunction with Bechtel Welding Specification GWS-Structural is the correct welding procedure for these circumferential fillet welds.

QCIR C304-288W has been corrected in accordance with Bechtel QC Procedure PSP/SF G-7.1 to reflect the above conclusions including the incorrect change made by a QCE on 8/24/79.

90007260

To preclude recurrence of this problem, the individual QCE involved has been apprised of the errors and trained in the proper manner of correcting QCIR Records per SF/PSP G-71. Additionally, all QCE's have received training on the requirements of SF/PSP G-71.

The above actions, which are considered effective immediately, will achieve full compliance with respect to this infraction.

90007261

Start Up System: 2-BKA

Consumers Power Company

NONCONFORMANCE REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

PAGE 1 OF 3

6. PROJECT NAME: Midland 1 & 2	7. NONCONFORMING PART NO: QCIR	8. NONCONFORMING PART NAME: R/B Spray Ring Anchors	1. NCR SERIAL NO: M-01-79-U-093
			2. DATE: 9-4-79
9. SERIAL NUMBER: Unit 2 Anchor No 090, 070, 050, 030 & 020 (2 anchors each No)	10. CUS. COMPLAINT NO: Bechtel QC	11. AREA/LOC. OF NC: Vault	3. DATE OF INV: Closed 11-27-79
			4. FILE NO: 16.3.6

12. AS IS NONCONFORMING CONDITION VERSUS AS REQUIRED CONDITION (TEST REF):

Activity 3.5a has an NA entered and initialed for Welding/NDE IR review. Further, the Welding/NDE IR number is not entered. Contrary to the above, PQCI P-2.10 Rev 1 instruction for activity 3.5 states in part, "Verify that required welding and NDE, installation and testing of concrete expansion anchors, and grouting and drypacking have been completed and are acceptable by reviewing the applicable inspection documentation for the QCE acceptance signature. Enter the applicable documentation identity number(s) on the pipe support IR".

5. DISTRIBUTION

ACTION COPY:

LADreisbach

INFO COPY:

WLBarclay, WRBird, TCCooke(2), JLCorley, RHermeston, SHHowell, DRJohnson, GSKeeley, BWMarguglio, JMilandin, DBMiller, WGMoring, JFNowgen, JARutgers, RASimanek, DATaggart

13. CA RECOMMENDATION FOR PART 21:

1. Re-open affected QCIR's and correct deficiencies.

SECTION/PROJECT ENG. DISPOSITION REQUIRED [ ] NOT REQUIRED [X]

14. HOLD TAGS APPLIED: YES [ ] NO [X] PERSONS, LOCATION & DATE OF HOLD TAGS APPLIED: NA

15. IS PROCESS CA REQUIRED: YES [X] NO [ ] IF NO, EXPLAIN JUSTIFICATION BELOW:

16. DOES NC AFFECT A-LIST ITEM: YES [X] NO [ ]

17. IS NC REPORTABLE PER 50.55(e): YES [ ] NO [X]

18. IS NC REPORTABLE PER PART 21: YES [ ] NO [X]

19. IF YES, DATE & TIME OF REPORT TO NRC: NA

20. IF YES, NRC PAGE REPORT TO NRC: NA

21. IF YES, NAME OF NRC OFFICIAL TO WHOM REPORTED: NA

22. NCR GENERATED BY: Donald K. Martin

23. PROJECT REPLY REQUIRED BY: 9-19-79

TO ESTABLISH CA COMPLETION DATE

24. INSPECTOR'S SIGNATURE/DATE: DK Keating 9-4-79

25. PART CA DESCRIPTION, IMPLEMENTATION & COMPLETION DATE:

Affected QCIR's were opened and addendums made. 11/21/79

26. DESIGN/PROJECT RES. ACTN. REQ'D: NA	27. NCO RES. ACTN. REQ'D: NA	28. MANAGEMENT RES. ACTN. REQ'D: NA	29. RES. OF ACT. REQ'D. (CA ITM): Bechtel Letter LAD-1202
30. FAB/CONST. RES. ACTN. REQ. REQ'D: NA	31. RES. OF THIS PROJ ACTION, DESCRIPTION: NA	32. THIS MATRL NCR - RES. ACTN. REQ. ACTN. REQ'D: NA	33. CA ACTN. RES. TO DOCUMENT REQ'D: Donald K. Martin

34. VERIFICATION OF PART CA IMPLEMENTATION:

See Page 3.

35. RES. OF REQ. REQ'D. FOR PART CA RESPONSIBLE COMPLETION: Bechtel Letter LAD-1202	36. RES. VERIFICATION PART CA & PROC CA REMOVAL DATE: Donald K. Martin 11/20/79	37. NCR CLOSED BY DATE (PART & PROCESS CA COMPLETE): Donald K. Martin 11/27/79

Document Control (1141 - 02211 - 15200 - 73*10*03)

90007262

Consumers Power Company

NONCONFORMANCE REPORT
PROCESS CORRECTIVE ACTION

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

NCR SERIAL NUMBER: M-01-9-9-093

18. QA ASSESSMENT OF ROOT CAUSE(S):

To be determined.

19. ACTUAL ROOT CAUSE(S), IF DIFFERENT FROM ABOVE (TO BE COMPLETED BY ORG. RESPONSIBLE FOR PROCESS CA):

The root cause was inattention to detail. Bechtel letter LAD-1202.

20. PROCESS CA RESULTED FROM:

ORIGIN [ ] FABRICATION [ ] CONSTRUCTION [ ] PROCUREMENT [ ] INSPECTION [X]

OTHER

21. QA RECOMMENDATION FOR PROCESS CA:

1. Review all QCIR's for Spray Ring Anchors of Unit 1 and 2 for similar omissions/errors.
2. Document and correct omissions/errors found in Item 1 above.
3. Take action to preclude recurrence.
4. Determine root cause and corrective action.

22. PROCESS CA TO BE TAKEN BY ORG(S) CITED IN BLOCK 21 & DATE OF COMPLETION:

1. Affected QCIR's were opened and addendums made. 11/21/79
2. Training session was conducted.

90007263

23. METHOD OF PROCESS CA VERIFICATION:

1. QCIR P-2.10-613-1a, b and c, Log No 46030 was reviewed.
   Activity 3.5a was reviewed for the following seven out of a total of ten hangers:

2-GCB-14-H2	Sketch 2-613-1-14	2-GCB-16-H41	Sketch 2-613-1-17
2-GCB-15-H44	Sketch 2-613-1-8	2-GCB-13-H4	Sketch 2-613-1-12
2-GCB-15-H45	Sketch 2-613-1-9	2-GCB-16-H42	Sketch 2-613-1-18
2-GCB-13-H2	Sketch 2-613-1-10		

(Contd on Page 3)

24. ORG. OF ORG. RESPONSIBLE FOR PROCESS CA VERIFYING COMPLETION:

Bechtel Letter LAD-1202

25. PROCESS CA COMPLETION VERIFIED BY/DATE:

Donald H. Thurston 11/27/79

90007262

NCR SERIAL NO: M-01-9-9-093
DATE: 9-4-79
DATE OF REV: Closed 11-27-79
FILE NO: 16.3.6

34. METHOD OF PART CA VERIFICATION:

QCIR P-2.10-613-1a, b and c, Log No 46030 was reviewed.
Activity 3.5a was reviewed for the following seven out of a total of ten hangers:

2-GCB-14-H2	Sketch 2-613-1-14
2-GCB-15-H44	Sketch 2-613-1-8
2-GCB-15-H45	Sketch 2-613-1-9
2-GCB-13-H2	Sketch 2-613-1-10
2-GCB-16-H41	Sketch 2-613-1-17
2-GCB-13-H4	Sketch 2-613-1-12
2-GCB-16-H42	Sketch 2-613-1-18

Additionally, QCIR P-2.10-612-1-1c was reviewed for hanger 1GCB-13-H2 Sketch 1-612-1-10. QCIR P-2.10-612-1-1a and -1b addendum c copy (only) was reviewed.

43. METHOD OF PROCESS CA VERIFICATION:

(Contd from Page 2)

1. (Contd)

   Additionally, QCIR P-2.10-612-1-1c was reviewed for hanger 1GCB-13-H2 Sketch 1-612-1-10. QCIR P-2.10-612-1-1a and -1b addendum c copy (only) was reviewed.

2. QCFM 6718 was reviewed for documenting training session.

90007264

JLC
DRK
RGW
PRK
DDB
QE
DKM

Bechtel Power Corporation

Post Office Box 2167
Midland, Michigan 48640

November 16, 1979

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

Attention: J. L. Corley

Job 7220 Midland Project
CPCo NCR M-01-9-9-093
Complete Response
LAD-1202 Action Item-S-053

Dear Mr. Corley:

The subject NCR identified that R/B Spray Ring Anchor QCIR's lacked welding NDE IR numbers contrary to the requirements of PQCI P-2.10 Rev. 1. It recommended that Bechtel correct the deficiencies and take appropriate process corrective action based on the root cause determined by Bechtel.

Bechtel has evaluated the problem and the following is submitted as a complete response.

1) QCIR's for Spray Ring Anchors have been reviewed and discrepancies have been corrected (e.g., QCIR's P-2.10-613-1C, and P-2.10-612-1-1C).

2) The root cause was inattention to detail.

3) Corrective action has been taken and training session held is documented in QCFM 6718.

I believe all the concerns expressed in the subject NCR have been addressed by this complete response. Should you have any additional questions, please contact T. K. Subramanian of this office.

Very truly yours,

L. A. Dreisbach
Project Quality Assurance
Engineer

LAD/TKS/bss

cc: W. Bird
B. Marguglio
D. Miller

CONSUMERS POWER COMPANY
RECEIVED
NOV 21 1979
FIELD QUALITY ASSURANCE
MIDLAND, MICHIGAN

90007265

Start Up System: 2-CNC

Consumers Power Company

NONCONFORMANCE REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

PAGE 1 OF 2

4. PROJECT NAME: Midland	7. NONCONFORMING PART NO: I-1.10-2TE-1958-1 I-1.10-2TE-1957-1	3. NONCONFORMING PART NAME: QC Inspection Report	1. NCR SERIAL NO: M-01-4-9-101
			2. DATE: 9-24-79
5. SERIAL NUMBER: NA	10. SUB. CONTRACTOR NO: Bechtel QC	11. REV/DOC. OF NO: NA	3. DATE OF REV: Closed 11-12-79
			4. PER NO: 16.3.6

12. AS IS" NONCONFORMING CONDITION VERSUS "AS REQUIRED" CONDITION (FULL DETAIL):

Section 3.4.6 of SF/PSP G-1.1 Rev 3 states in part concerning the standards for inspection are based upon "the criteria established in the design documents and Field Engineering documents".

Inspection Records for the Installation of Instruments (I-1.10) used to inspect 2TE-1958 and 2TE-1957 reference piping isometric M-619, Sheet #2, Rev 6/F5. The correct isometric is M-619, Sheet #3, Rev 6/F2.

5. DISPOSITION ACTION COPY:

LADreisbach

INFO COPY:

WLBarclay, WRBird, TCCooke(2), JLCorley, RHermeston, SHHowell, DRJohnson, GSKeeley, BWMarguglio, JMilandin, DBMiller, WGMoring, JFNewgen, JARutgers, RASimanek, DATaggart

13. CA RECOMMENDATION FOR PART 12:

1. Reinspect thermowells to correct isometrics.
2. Correct the I-1.10's to reflect correct inspection documents.

DESIGN/PROJECT ENG. DISPOSITION REQUIRED [ ] NOT REQUIRED [X]

14. HOLD TAGS APPLIED: YES [ ] NO [X] TAGGED, LOCATION & TYPE OF HOLD TAGS APPLIED: NA

15. IS PROCESS CA REQUIRED: YES [X] NO [ ] IF NO, ENTER JUSTIFICATION BELOW:

16. DOES NC AFFECT Q-LIST ITEM: YES [X] NO [ ]

17. IS NC REPORTABLE PER 50.55(e): YES [ ] NO [X]

18. IS NC REPORTABLE PER PART 21: YES [ ] NO [X]

19. IF YES, DATE & TIME OF REPORT TO NRC: NA

20. IF YES, NRC HAS NOTIFIED TO NRC: NA

21. IF YES, NAME OF NRC OFFICIAL TO WHOM REPORTED: NA

22. NCR INITIATED BY: [signature]

23. NONCONFORMING REPORT REVIEWED BY: 10-5-79

TO ESTABLISH CA COMPLETION DATE

24. SUPERVISOR'S INITIATION DATE: [signature] 9-24-79

25. PART CA DISPOSITION, JUSTIFICATION & COMPLETION DATE:

Verified I-1.10-2TE-1958-1
I-1.10-2TE-1957-1
Corrected and re-inspected.

26. TESTING/PROJECT ENG. AUTH. DISP.: NA	27. NO ENG. AUTH. DISP.: NA	28. PROCUREMENT ENG. AUTH. DISP.: NA	29. ENG. OF REC. AUTH. DISP.: See LAD-1189
30. FAB/CONST. ENG. AUTH. DISP. DISP.: NA	31. ENG. OF TEST GROUP AUTHOR. DISPOSITION: NA	32. NCR WAIVER NO - FAB. ENGR. ENG. AUTH. DISP.: NA	33. QA AUTH. ENG. TO DISPOSITION DISP.: [signature]

34. METHOD OF PART CA VERIFICATION:

Visual

90007266

35. ENG. OF REC. DISP. FOR PART CA PERFORMING DISPOSITION: LAD-1189 [signature] 13 Nov 79	36. ENG. VERIFIED PART CA & ENG. DAS REMOVAL DATE: [signature] 13 Nov 79	37. NCR CLOSED BY DATE: (PART & PROCESS CA COMPLETE) [signature] 13 NOV 79

Document Control (1141 - 2 - 10400 - 73*10*03)

Consumers Power Company

NONCONFORMANCE REPORT
PROCESS CORRECTIVE ACTION

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT
M-01-4-9-101
PCI ORIGINAL NONCONF.:
PAGE 2 of 2

12. CA ASSESSMENT OF ROOT CAUSE(S):

QC errored in transposing sheet numbers due to 2TE-1956 which is on Sheet #2 and was part of the group of IR's acted upon on the same day.

13. ACTUAL ROOT CAUSE(S), IF DIFFERENT FROM ABOVE (TO BE COMPLETED BY CAO, RESPONSIBLE FOR PROCESS CA):

See LAD-1189.

14. PROCESS CA ASSIGNED FROM:

DESIGN [ ] FABRICATION [ ] CONSTRUCTION [ ] PROCUREMENT [ ] INSPECTION [X]
OTHER

15. CA RECOMMENDATION FOR PROCESS CA:

1. Conduct training se sion concerning QC's review of design document requirements and their proper/correct transposition onto the IR Form QCG-6.6.

16. PROCESS CA TO BE TAKEN BY CAO(S) CITED IN BLOCK 11 & DATE OF COMPLETION:

See LAD-1189.

17. METHOD OF PROCESS CA VERIFICATION:

Reviewed training records.

90007267

18. NAME OF PERS. RESPONSIBLE FOR PROCESS CA VERIFICATION COMPLETION:

See LAD-1189

19. PROCESS CA COMPLETION VERIFIED BY/DATE:

[signature] 13/10/89

CONSTRUCTION-DEPARTMENT
M-01-4-9-101
2

CONSUMERS POWER COMPANY
RECEIVED
NOV 12 1979
FIELD QUALITY ASSURANCE
MIDLAND, MICHIGAN

Bechtel Power Corporation

Post Office Box 2167
Midland, Michigan 48640

November 9, 1979

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

Attention: J. L. Corley

Job 7220 Midland Project
CPCo NCR M-01-4-9-101
Complete Response
LAD 1189, Action Item S-070

Dear Mr. Corley:

The subject NCR noted incorrect drawing reference on inspection records, 2TE-1958 and 2TE-1957.

In response, Bechtel Control has reinspected the subject thermowell installation in conjunction with correcting the reference criteria on IR's I-1.10-2TE-1957-1 and I-1.10-2TE-1958-1 were conducted satisfactorily on 9/20/79.

A training session for all Piping/Mechanical/Instrumentation QCE's concerning the requirements for documenting and conducting a review of inspection reference criteria prior to performing inspections was conducted on 9/21/79 (Ref. QCFM-6866).

If you have any questions concerning the above, please contact Phil Falkenborg of this office.

Very truly yours,

LA Dreisbach

L. A. Dreisbach
Project Quality Assurance
Engineer

X JLC	
X DRK	DTCK
RCW	
PRK	
DDB	
X MFC	
QE	
FILE	

LAD/PEF/sjc

cc: B. Marguglio
W. Bird

90007268

Start Up System: Indeterminate

Consumers Power Company

NONCONFORMANCE REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

6. PROJECT NAME: Midland	7. NONCONFORMING PART NO: NA	8. NONCONFORMING PART NAME: Portable Rod Oven	1. NCR SERIAL NO: M-01-4-9-110
			2. DATE: 10-9-79
9. SERIAL NUMBER: NA	10. ORG. CONTROLLING NC: Bechtel Construction	11. AREA LOC. OF NC: Cont #2	3. DATE OF REV: 11-20-79 Closed
			4. FILE NO: 16.3.4

12. "AS IS" NONCONFORMANCE CONDITION VERSUS "AS REQUIRED" CONDITION WITH REFS:

Portable rod oven No 288 issued to Welder P-654 containing approximately six pounds of 3/32" diameter 7018 electrodes was found adjacent to the emergency lock. The oven was not plugged in and the electrodes were cold indicating that the oven had not been plugged in for a considerable period. This is contrary to paragraphs 6.5 and 6.5.7 of WFMC-1, Rev 6.

5. DISTRIBUTION

ACTION COPY:

LADreisbach

INFO COPY:

WRBird
TCCooke (2)
JLCorley
GSKeeley
BWMarguglio
JMilandin
DBMiller
DATaggart

13. CA ACCOMMODATION FOR PART DA:

Discard the electrodes.

DESIGN/PROJECT ENG. DISPOSITION REQUIRED [ ] NOT REQUIRED [X]

14. HOLD TAGS APPLIED: YES [ ] NO [X] NUMBER, LOCATION & TYPE OF HOLD TAGS APPLIED: NA

15. IS PROCESS CA REQUIRED: YES [X] NO [ ] IF NO, ENTER JUSTIFICATION BELOW:

16. NOTES TO AFFECT A-LIST ITEM: YES [X] NO [ ]

17. IS NC REPORTABLE PER 50.55(e): YES [ ] NO [X]

18. IS NC REPORTABLE PER PART 21: YES [ ] NO [X]

19. IF YES, DATE & TIME OF REPORT TO NRC: NA

20. IF YES, WHO MADE REPORT TO NRC: NA

21. IF YES, NAME OF NRC OFFICIAL TO WHOM REPORTED: NA

22. NCR ORIGINATED BY: R. O. Rafferty

23. WRITTEN REPLY REQUIRED BY: 10-24-79 TO ESTABLISH CA COMPLETION DATE

24. SUPERVISOR'S SIGNATURE/DATE: [signature] 10-10-79

25. PART DA DISPOSITION, JUSTIFICATION & COMPLETION DATE:

See Attachment Page 1 20 Nov 79.

26. DESIGN/PROJECT SIG. AUTH. DISP.: N/A	27. MGD SIG. AUTH. DISP.: N/A	28. PROCUREMENT SIG. AUTH. DISP.: N/A	29. SIG. OF SUB. MAGR. FOR N/A: See Attachments
30. PAB/CONST. SIG. AUTH. DIR. DISP.: N/A	31. SIG. OF TEST GROUP ACCEPT. CONDITION: N/A	32. FOR MATER MGD - FLD. SUPT. SIG. AUTH. DISP.: N/A	33. QA AUTH. SIG. TO COMPLETE DISP.: R. O. Rafferty

34. METHOD OF PART DA VERIFICATION:

Reviewed Attachment Page 1.
Verified that the electrodes were discarded

35. SIG. OF SUB. DISP. FOR PART DA VERIFYING COMPLETION: See Attachments	36. SIG. VERIFYING PART DA & HOLD TAG REMOVAL DATE: R. O. Rafferty 20 NOV 79	37. NCR CLOSED BY: DATE & TIME: R. O. Rafferty 20 NOV 79

Document Control - (1141-2-73*10*03)

90007269

Consumers Power Company

NONCONFORMANCE REPORT
PROCESS CORRECTIVE ACTION

PROJECTS, ENGINEERING AND CONSTRUCTION
QUALITY ASSURANCE DEPARTMENT

M-01-4-9-110
NCR SERIAL NUMBER:

38. CA ASSESSMENT OF ROOT CAUSE(S):

To be determined later.

39. ACTUAL ROOT CAUSE(S), IF DIFFERENT FROM ABOVE (TO BE COMPLETED BY ORG. RESPONSIBLE FOR PROCESS CA):

N/A

40. PROCESS CA ADDRESSED FROM:

DESIGN [ ] FABRICATION [X] CONSTRUCTION [ ] PROCUREMENT [ ] INSPECTION [ ]

OTHER

41. CA RECOMMENDATION FOR PROCESS CA:

Re-emphasize the requirements of WFMC-1 to the responsible personnel.

42. PROCESS CA TO BE TAKEN BY ORG(S) CITED IN BLOCK 41 & DATE OF COMPLETION:

See Attachments 20 Nov 79

43. METHOD OF PROCESS CA VERIFICATION:

Reviewed Attachments.

Verified that Craft Personnel had been given training.

90007270

44. SIG. OF ORG. RESPONSIBLE FOR PROCESS CA REPORTING COMPLETION:

See Attachments

45. PROCESS CA COMPLETION VERIFIED BY:

R. E. Rafferty 20 NOV 79

ATTACHMENT TO CPCO NCR M-01-4-9-110 PAGE 1

Bechtel Power Corporation

Interoffice Memorandum

To: G. Smith

Subject: SO - 93 & 94

File No.

Date: November 7, 1979

From: P.S. Brooks

Of: Welding

At: Midland, MI. Ext. 426

Copies to

In response to the above QA Action Item No. 93 & 94; the Welding Department has re-issued the "do's" and "don'ts" that are given to welders upon satisfactorily passing the welder's qualification tests. This document is read and signed by each welder before going to the field. It has also been typed in French due to the number of Canadians on the project. Also, Mr. L. Davis will be issuing a letter concerning the above subject.

In addition to the above, all Field Welding Engineers have been re-instructed to the requirements of WFMC-1 and were told that any cans found with cold electrodes shall be taken to the rod rooms, where they shall be either destroyed or sent to the test booth.

P.S. Brooks
P.S. Brooks

cc Phil
file with NCR + ltr.
- Phil Respond to cpco.

NCR M01-4-9-110 A/I S-93
NCR M01-4-9-111 A/I S-94
MR 344 [illegible] A/I S-100 — NRC information

90007271

Bechtel Power Corporation

Post Office Box 2167
Midland, Michigan 48640

November 8, 1979

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

Attention: J. L. Corley

Job 7220 Midland Project
CPCo NCR's M-01-4-9-110
and M-01-4-9-111
NRC Infraction 79-22-02
Complete Response
LAD-1184 Action Items-S-93,
S-94 and S-100

Dear Mr. Corley:

Please find attached Bechtel's reply to NRC Infraction 79-22-02 "Two Rod Ovens Not Energized" which were also documented on the two subject Consumers Power Company NCR's.

The attachment is formatted as a NRC response and is also a full response to the two subject Consumers Power Company NCR's.

Should you need any additional information, please contact Mr. Phil Falkenborg of my office.

Very truly yours,

L. A. Dreisbach
Project Quality Assurance
Engineer

LAD/PEF/bss

cc: W. Bird
B. Marguglio

Attachment

JLC	
DRK	
RGW	
PRK	
KDDB	
AKRK	
QE	
FILE	

90007272

ATTACHMENT TO CPCO NCR M-01-4-9-110 PAGE 2

CONSUMERS POWER COMPANY RESPONSE

TO ITEM OF NONCOMPLIANCE

DESCRIBED IN NRC INSPECTION REPORT

(NO. 50-329/79-22) (NO. 50-330/79-22)

TWO PORTABLE ROD OVENS NOT ENERGIZED

(50-330/79-22-02)

ATTACHMENT TO CPCO NCR M-01-4-9-110 PAGE 3

Description of Noncompliance

10 CFR 50, Appendix B, Criterion V, states, in part, that, "Activities affecting quality shall be prescribed by documented instruction, procedures, . . . and shall be accomplished in accordance with these instructions, procedures, . . ."

Bechtel Quality Assurance Manual ASME Section III Nuclear Components Division 1, paragraph 5148, states in part, that, " . . . Requirements for receipt, inspection, storage, issue and return to stock of welding filler materials are in WFMC-1 . . ."

Bechtel Power Corporation Procedure Specification No. WFMC-1, Revision 6, Amendment 2, paragraph 6.5.8.1, states, in part, that, "The portable warmers shall be energized within three hours of the electrode issuance from the rod room . . ."

Contrary to the above, the inspector established the following:

a. On October 9, 1979, approximately 3:00 p.m. a portable oven with I.D. No. 288, containing approximately 30 sticks of 3/32" diameter E7018 welding rods was left unenergized in the Unit 2 Containment Building adjacent to the Emergency Personnel Hatch. The welding rods were cold to touch. The welding rods were issued to be used on weld No. M326-2880W, of Systems No. 10"-2HBC-110-H9 on drawing No. 619-2-9.

b. On October 10, 1979, approximately 2:00 p.m., a portable oven with I.D. No. 286, containing approximately 60 sticks of 3/32" and 1/8" diameter E7018 welding rods was left unenergized in the Unit 2 Containment Building at approximately elevation 611' -0" and 270° azimuth. The welding rods were cold to touch. The welding rods were issued to be used on weld No. M326-2496W, of system No. 10" -2HBC-110-H28, on drawing No. 619-2-30.

c. The portable ovens were issued to the welders at 7:00 a.m. on the days in question according to the logs kept at the rod room.

d. No welding has been performed at the time when the conditions were noted because no weld rod stub was in the stub can.

90007273

Response

The offending welders were immediately retrained by Bechtel supervision on weld rod control and emphasis was placed on portable warmer engergizing requirements. At this time Bechtel Supervision and field engineers concentrated on this subject to assure conformance of specification requirements by other craftsman. Subsequent to these incidences, by direction a documented training session was conducted by Site Management.

To preclude recurrence Bechtel Field Engineering has re-issued the "do's" and "don't" that are given to welders upon satisfactorily passing the welders qualification tests. This document is read and signed by each welder before going to the field. It has also been typed in French due to the number of Canadians on the project.

These actions have all taken place and full compliance has been achieved.

ATTACHMENT TO CPCo NCR M-01-4-9-110 PAGE 4

ATTACHMENT TO CPCO NCR M-01-4-9-110 PAGE 5

Bechtel Power Corporation

Interoffice Memorandum

To: Midland QA File
Midland Training File

Subject: Record of Training
Housekeeping and Equipment
Protection

File No. LAD-1162

Date: October 26, 1979

From: P. E. Falkenborg

Of: Quality Assurance

At: Midland, MI Ext. 390

Copies to: L. Davis
L. Dreisbach
O. Holman

Reference: CPCo Memo 344FQA79 (NRC Exit 10/12/79)

O. H. Holman, Project Superintendent Construction conducted the 45 minute training session/conference on Spec. FPG-7.000 Rev. 0 Para. 7.7 the requirements of the housekeeping spec. was reviewed along with the other handouts, i.e. FPS 1.300 Rev. 0 Welding-Burning and cutting procedures plus NRC Notice of Violation. Each super attending is to hold a training session with the general foreman and foreman reporting to him.

This is to be done by Friday, October 19, 1979 and attendance lists are to be made.

Subcontracts is to take this same or similar action with the major subcontractors.

He also discussed today's violation concerning Rod Ovens Not being turned on, and stressed correcting this problem.

He then discussed the need to clean concrete splashes from stainless steel surfaces and general clean-up requirements being stepped up.

A detailed conversation followed about eating areas and tool box locations and zones for housekeeping (FPS-7.000 Para. 6.0).

Philip E. Falkenborg
P. E. Falkenborg
Quality Assurance Engineer

PEF/bss

90007275

5024, REV 1/78

OCT. 12, 1979

H. HOLMAN'S TRAINING SESSION FPG-7.000 PARA. 7.7 RE

ATTENDEES

PHIL FAKENBORG BECHTEL QA

BRUCE MATTHEWS BECHTEL ELECTRICAL

[illegible] BECHTEL SUPT.

[illegible] Bech. Supt. Elect

[illegible]

D. Short BECH. MECH. ENGRG.

LOLLSEN Bec. Aux Supt.

WM J NATERA Bechtel AREA Supt

Charlie Cross Bechtel Subcontractor

Harold Allen " "

M Defeters BECHTEL SUPERVISION

J Delaun " "

ATTACHMENT TO CPCO NAR M-01-4-9-110, PAGE 6

90007276

ATTACHMENT TO CPCO NCR M-01-4-9-110 PAGE 7

Bechtel Power Corporation

Interoffice Memorandum

To: All Craft Welders

Subject: Job 7220 Midland Project
Rules for Test Facilities

Copies to:

File No.:

Date: November 9, 1979

From: L. E. Davis

Of: Construction

At: Midland, MI

Ext.:

1. If you have any questions or problems, one of the Welding Engineers will try to help solve them.

2. When you come in to test, you are assigned to the test booth. If any help is needed for unloading rods, coupons, etc... you will be asked to assist.

3. At the end of the day or test, you will clean up your booth before leaving test facilities.

4. Throw the rod stubs in the rod stub bucket and at the end of the shift, throw then in the rod stub containers (55 gallon drum - yellow).

5. Keep curtains closed when grinding or welding.

6. Cleanup time is 10 minutes prior to shift quitting time.

7. You can use the grinder to grind your stops and starts only on the first pass.

8. You are to use the safety equipment provided. If there isn't any, ask the Welding Engineer.

9. Keep rod ovens plugged up.

10. Keep test tables down. Tables will be stationary, but can swivel.

11. Bench grinder will be used for Tungsten only.

90007277

12. There will be no down-hill welding at anytime.

13. Do not arc the face of the coupon. Strike where you are going to weld in the groove.

14. Do not weld to or set your welding machine by welding on the test stand.

15. Do not spit on the floor or in the rod stub bucket.

16. All unused rod will be returned to the ovens.

17. Paper and trash will be put in the trash bin and not the skid box.

18. All horizontal bead patterns will be welded from the bottom up.

19. All test coupons will be tacked in position and remain so until the test position is completed.

20. Grinders will be kept off the floor. Hang them up.

21. Any infraction of these rules may result in your removal from the test facility and/or termination.

L. E. Davis

LED/KLB/JGS/mkm

Welders Signature

90007278

ATTACHMENT TO CPCO NCR M-01-4-9-110. PAGE 8

ATTACHMENT TO CPCO NCR M-01-H-9-110 PAGE 9

Bechtel Power Corporation

Interoffice Memorandum

To: Aux soudeurs dans tout les métiers

Subject: Règlements pour ceux qui testent

File No.:

Date: November 9, 1979

From: L. E. Davis

Of: Construction

Copies to:

At: Midland, MI

Ext.:

1. Si vous avez des questions ou problèmes l'Ingénieur en charge S'occupera de vous aider à résoudre ces problèmes et répondre à vos questions.

2. Lorsque vous entrez pour tester on vous désigneras une table de travail (booth). Dans certaines occasions on auras besoin d'aide pour manipuler des coupons et boite d'électrodes, dans ces cas vous serez demandés d'aider.

3. A la fin de la journée ou lorsque votre test est completé, nettoyez votre table de travail (booth) et le plancher avant de partir.

4. Ne jettez pas les bouts de rods sur le plancher. Déposez les dans la chaudiére qui vous est donné dans ce but. A la fin de la journée, videz cette chaudière dans le baril jaune de 55 gallon.

5. Gardez les rideaux fermés en tout temps lorsque vous travaillez.

6. Le temps du nettoyage est a 10 minutes avant la fin de la jounée.

7. Vous pouvez vous servir du grinder pour les départs et arrêts de la première passe de soudure seulement.

8. Servez vous de l'équipement de securité en tout temps, protecteur pour les yeux et la figure. Au cas ou vous n'en avez pas a votre table de travail, demandez en a votre ingénieur en charge.

9. Gardez les fourneaux portatifs connectés en tout temps.

90007279

10. Gardez la table de test basse, la table doit être stationnaire mais peût être tournée.

11. La meule d'émery doit servir pour aiguiser vos tungstens seulement.

12. La soudure de haut en bas est interdite.

13. Commencez à souder dans l'angle (bevel) du coupon, pas sur la face.

14. N'Adjustez pas votre machine en soudant sur la table. Prenez une pièce rebut (scrap).

15. Ne crachez pas sur le plancher ou dans la chaudière pour les bouts de rods.

16. Retournez au fourneau les électrodes n'ont pas servies.

17. Papiers et autre rebuts doivent être jettés dans la poubelle, pas dans la boite a métal.

18. Dans la position horizontal, déposez les passes du bas en haut.

19. Les coupons doivent être attachés (tacked) en position et y demeurer jusqu'à la fin de cette partie du test.

20. Ne laissez pas les outils à air (grinders) sur le plancher. Accrochez les.

21. Toute déviation a ces règlements pourrais être une cause de renvois de l'atelier de soudure et/ou être terminer.

L. E. Davis

LED/KLB/JGS/mkm

Signature du Soudeur

ATTACHMENT TO EPCO NCR M-01-24-C-110 PAGE 10

90007280

ATTACHMENT TO CPCO MCR M-01-4-9-110 PAGE 11

MIDLAND PROJECT
UNITS 1 & 2

GENERAL INSTRUCTIONS TO WELDERS

A. Welder Qualification

1. All Bechtel Power Corporation welders working on this project shall be qualified by Bechtel in strict accordan with the codes, job specifications, and Bechtel welding procedures.

2. After qualification, each welder will be given a welder' symbol according to his craft.

B. Before Welding

1. Before going to the rod room, the welder must have a Filler Metal Withdrawal Form (WR-6 or WR-6A) identifying the size and classification of filler material to be issued. These forms are to be signed by your foreman and shall include the welder's name and identification number, and for non-Q welding, shall include the work location. The form must also be signed by the area field welding engineer.

2. Check to see that you have the type welding filler metal specified on the Filler Metal Withdrawal Form (WR-6 or WR6A). This information can be found on each covered electrode and on the flytagged end of each bare wire.

3. Use only the filler metal issued to you for the weld or welds described on the Filler Metal Withdrawal Form (WR- or WR-6A).

4. Assure that the weld joint is properly cleaned including the removal of paint (except deoxaluminite), grease, oil and rust.

5. When grinding is required on stainless steel, use only the proper grinding tools, as directed by your foreman.

6. When filler metal (bare wire) must be cut short to facilitate welding, only the portion with the identification tag shall be used. The remaining portion must be discarded in the stub bucket and not be used for welding.

7. Assure that adjacent material and equipment are properly protected from welding heat, sparks, and slag. Particul attention shall be given to the area below the weld.

8. Welding to anchor bolts, rebar, containment liner plat tendon base plates, valves, pumps, tanks, vessels, anc other vendor supplied equipment is prohibited unless allowed by engineering documents.

C. During Welding

1. Assure that the rod warmer is plugged in when at the w area.

2. Keep the rod container or rod warmer lid closed except removing filler metal.

3. Precautions shall be taken to avoid arc strikes.

4. Filler metal stubs shall be placed in the stub buckets not place stubs in rod containers, rod warmers, or on floor.

5. Contact your foreman or area field welding engineer if have any questions or are having problems with the joi

D. After Welding

1. Assure that all slag is removed from completed welds.

2. Assure that your identification symbol is placed adjace to the weld as required.

3. Assure that any arc strikes are removed.

4. At the end of each shift or upon completion of the welc welds, assure that the following is returned to the iss rod room:

a. Rod container or rod warmers.

b. Unused filler metal.

c. Filler Metal Withdrawal Forms in the plastic envelo except for welds in "Q" piping and supports.

d. Stub bucket with filler metal stubs for disposal in designated containers.

Violations of the above instructions will result in disciplinary action

90007282

ATTACHMENT TO CPCO NCR M-01-4-9-110 PAGE 12

MIDLAND PROJECT
UNITS 1 & 2

INSTRUCTIONS GENERALES POUR SOUDEURS

A. Qualification Du Soudeur

1. A tous les soudeurs de Bechtel Power travaillant sur le project a Midland, devront etre qualifies par Bechtel en accord avec les codes, specifications du project et des procedures en soudure de la Bechtel.

2. Apres s'etre qualifie, chaque soudeur lui sera donne un symbol d'apres son metier.

B. Avant De Souder

1. Avant d'aller a la rod room, le soudeur doit avoir en sa possession une requisition: forme (WR-6 ou WR-6A) indentificant la sorte, le diametre et la classification des electrodes qui vous serontdonnes. Ces formes doivent etre signes par votre contre-maitre et doivent inclure votre nom, numero d'identification (symbol). Pour la soudure non-Q la location du travail devra etre specifiee sur la forme. La forme doit aussi etre signee par l'Ingenieur de soudure en charge de l'endroit ou le travail doit etre effectue.

2. Verifiez les electrodes qu'on vous donne, les informations sont sur la forme (WR-6-|A). Les electrodes sont etampes, et ceux qui n'ont pas de flux ont un drapeau indentificateu

3. Employez seulement les electrodes qui vous ont ete donnes d'apres la forme WR-6 - WR-6A.

4. Assurez vous que le joint que vous allez souder est nettoye. Ce-ci inclus la peinture, graisse, Huile, rouille, (deoxaluminite est une exception).

5. Lorsque vous avez a grinder sur le stainless steel, employez les outils designes a cet effet. EX: les roues brosse d'acier sont marques avec peinture blanche. Si vous n'etes pas certain demandez a votre contre-maitre.

6. Dans certains cas vous aurez a couper un electrode en deux, employez la partie avec l'identification seulement. L'autre partie ne doit pas servir pour souder jetez la dans la chaudiere (stub bucket).

7. Assurez vous que le materiel ou piece d'equipement sont proteges, contre la chaleur etincelles. Une attention speciale pour ce qui en dossous.

ATTACHMENT TO CPCO NCR M-01-4-9-110 PAGE 13

8. Souder sur boulons d'encrage, acier d'armature, mur du containement, plaque de base pour tendons, valves, pompes, tanks, vesseaux et autre equipments fournis par d'autre compagnies est defendu, a moins que ce soit permit par un document venant d'un Ingenieur.

C. Lorsque Vous Soudez

1. Lorsque vous arrivez a lendroit de votre travail, connectez votre chauffe-electrode portatif.

2. Gardez le couvercle du chauffe-electrode ferme, ouvrez le seulement qu'au besoin.

3. Precautions doivent etre prise pour eviter les arc-strikes

4. Vos bout d'electrode doivent etre dans la chaudiere. Ne les laissez pas sur le plancher ou dans le chauffe-electro

5. Si vous avez des problemes avec le joint que vous soudez, n'esitez pas, voyez votre contre-maitre ou votre Ingenieur de soudure.

D. SOUDURE COMPLETEE

1. Assurez vous que toute la slag est enlevee et bien brosse.

2. Assurez-vous que vous avez etampes votre symbol d'indentification adjacent a votre soudure comme requis.

3. Assurez-vous que les "Arc-strikes" sont enleves.

4. A la fin de votre journee de travail ou apres avoir completer la soudure assurez vous que les items qui suivent soient retournes a la rod room qui vous l'a donne.

   a. Contenant d'electrodes ou chauffe electrodes.

   b. Toutes electrodes qui n'ont pas servis.

   c. L'envelope de plastique contenant les formes WR-6 ou WR-6A, a l'exception des soudures qui sont listes "Q" pour tuyaux ou supports.

   d. Voir a vider votre chaudiere de bouts d'electrode dans les contenants designes a cet effet.

Violation a ces reglements ci-haut resultera a une action disciplina

ATTACHMENT TO CPCO NCR M-01-4-2-110 PAGE 14

ATTACHMENT TO CPRO NTR M-01-4-9-110 PAGE 15

Bechtel Power Corporatic

Interoffice Memorandum

To

Subject Job 7220 Midland Project General Instructions to Welders

Copies to

File No.

Date November 1, 1979

From Signee Below

Of Crafts

At Midland, MI. Ext 216

I have read and understand the General Instructions to Welders.

Welder's Name

Craft Badge No

Date

90007285

ATTACHMENT TO CPCO NCR M-01-4-9-110 PAGE 16

Bechtel Power Corporation

Interoffice Memorandum

To: Aux Surintendants de Tout Les Métiers

File No.

Subject: Job 7220 Midland Project
Instruction Generales Pour Soudeurs

Date: November 9, 1979

From: Soussigné

Of: Metier

Copies to

At: Midland, MI

Ext.

J'ai lù et compris les instructions générales des soudeurs.

Nom Du Soudeur

Metier Badge Symbol

Date

90007286

5024, REV 1/78

Start Up System: Indeterminate

Consumers Power Company

NONCONFORMANCE REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

6. PROJECT NAME: Midland	7. SUBCONTRACTED PART NO: NA	8. SUBCONTRACTED PART NAME: Portable Rod Oven	1. NCR SERIAL NO: M-01-4-9-111
			2. DATE: 10-10-79
9. SERIAL NUMBER: NA	10. ORG. CONDITION NO: Bechtel Construction	11. AREA/LOC. OF NC: Cont #2	3. DATE OF REV: 11-20-79 Closed
			4. REF NO: 16.3.4

12. AS IS" DESCRIPTION/ORIGINAL CONDITION VERSUS "AS REQUIRED" CONDITION WITH REFS:

Portable rod oven 286 issued to Welder P-538 containing approximately 10 pounds of 3/32" and 1/8" diameter 7018 electrodes was found at elevation 611. The oven was not warm and the electrodes were cold. This is contrary to paragraphs 6.5 and 6.5.7 of WFMC-1 Rev 6.

5. DISTRIBUTION

ACTION COPY:

LADreisbach

INFO COPY:

WRBird
TCCooke (2)
JLCorley
SHHowell
GSKeeley
BWMarguglio
JMilandin
DBMiller
DATaggart

13. QA RECOMMENDATION FOR PART DA:

Discard the electrodes.

DESIGN/PROJECT ENG. DISPOSITION REQUIRED [ ] NOT REQUIRED [X]

14. HOLD DAGS APPLIED: YES [ ] NO [X] NUMBER, LOCATION & TYPE OF HOLD DAGS APPLIED: NA

15. IS PROCESS QA REQUIRED: YES [X] NO [ ] IF NO, ENTER JUSTIFICATION BELOW:

16. DOES NC AFFECT R-LIST ITEM: YES [X] NO [ ]

17. IS NC REPORTABLE PER 10.55(e): YES [ ] NO [X]

18. IS NC REPORTABLE PER PART 21: YES [ ] NO [X]

19. IF YES, DATE & TIME OF REPORT TO NRC: NA

20. IF YES, WHO MADE REPORT TO NRC: NA

21. IF YES, NAME OF NRC OFFICIAL TO WHOM REPORTED: NA

22. NCR ORIGINATED BY: R. D. Rolfsema

23. WRITTEN REPLY REQUIRED BY: 10-25-79 TO ESTABLISH QA COMPLETION DATE

24. SUPERVISOR'S SIGNATURE/DATE: [signature] 10/26/79

25. PART DA DISPOSITION, JUSTIFICATION & COMPLETION DATE:

See Attachment Page 1 20 Nov 79

26. DESIGN/PROJECT RES. AUTH. DISP.: N/A	27. QAD RES. AUTH. DISP.: N/A	28. PROCUREMENT RES. AUTH. DISP.: N/A	29. RES. OF RES. REQ. FOR V/A: See Attachments
30. TAB/CLIENT RES. AUTH. DIR. DISP.: N/A	31. RES. OF DEPT GROUP ACTION. CONDITION: N/A	32. FOR MAJOR NCD - FLD. SUPV. RES. AUTH. DISP.: N/A	33. QA AUTH. RES. TO DOCUMENT DISP.: R. D. Rolfsema

34. SUMMARY OF PART DA VALIDATION:

Reviewed Attachment Page 1.
Verified that the electrodes were discarded.

35. RES. IF DAD. REQD. FOR PART DA DISPOSITION INVOLVING: See Attachments	36. RES. VERIFYING PART DA & HOLD DAG REMOVAL DATE: R. D. Rolfsema 20 Nov 79	37. QA AUTHORIZED BY DATE (PARTS, PROCESS, & CONCLUSION): R. D. Rolfsema 20 Nov 79

Document Control - (1141-2-73*10*03)

90007287

Consumers Power Company

NONCONFORMANCE REPORT
PROCESS CORRECTIVE ACTION

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

NCR SERIAL NUMBER: M-01-4-9-111

38. QA ASSESSMENT OF ROOT CAUSE(S):

To be determined later.

39. ACTUAL ROOT CAUSE(S), IF DIFFERENT FROM ABOVE (TO BE COMPLETED BY ORG. RESPONSIBLE FOR PROCESS CA):

N/A

40. PROCESS CA ARISES FROM:

DESIGN [ ] FABRICATION [ ] CONSTRUCTION [X] PROCUREMENT [ ] INSPECTION [ ]

OTHER

41. QA RECOMMENDATION FOR PROCESS CA:

Additional training to be given to craft personnel in the requirements of WFMC-1 with attendance rosters, by name, of all attendees furnished to CPCo QA upon completion.

42. PROCESS CA TO BE TAKEN BY ORG(S) CHECKED IN BLOCK 41 & DATE OF COMPLETION:

See Attachments 20 Nov 79

43. METHOD OF PROCESS CA VERIFICATION:

Reviewed Attachments.

Verified that Craft Personnel had been given training.

90007288

44. SIG. OF ORG. RESPONSIBLE FOR PROCESS CA STATEMENTS COMPLETION:

See Attachments

45. PROCESS CA VERIFICATION SIGNATURE:

R. O. [illegible] 20 NOV 79

Bechtel Power Corporation

Interoffice Memorandum

To: G. Smith

Subject: SO - 93 & 94

File No.

Date: November 7, 1979

From: P.S. Brooks

Of: Welding

At: Midland, MI. Ext. 426

Copies to

In response to the above QA Action Item No. 93 & 94; the Welding Department has re-issued the "do's" and "don'ts" that are given to welders upon satisfactorily passing the welder's qualification tests. This document is read and signed by each welder before going to the field. It has also been typed in French due to the number of Canadians on the project. Also, Mr. L. Davis will be issuing a letter concerning the above subject.

In addition to the above, all Field Welding Engineers have been re-instructed to the requirements of WPMC-1 and were told that any cans found with cold electrodes shall be taken to the rod rooms, where they shall be either destroyed or sent to the test booth.

P.S. Brooks
P.S. Brooks

cc Phil
file with NCR + Ltr.
- Phil Respond to CPCo.

NCR M01-4-9-110 A/I S-93
NCR M01-4-9-111 A/I S-94
LTR 344 FQA 79 A/I S-104 -- NRC information
from

90007289

ATTACHMENT TO CPCO NCR M-01-4-9-111 PAGE 7

ATTACHMENT TO CPCo NCR M-01-4-9-111 PAGE 2

Bechtel Power Corporation

Post Office Box 2167
Midland, Michigan 48640

November 8, 1979

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

Attention: J. L. Corley

Job 7220 Midland Project
CPCo NCR's M-01-4-9-110
and M-01-4-9-111
NRC Infraction 79-22-02
Complete Response
LAD-1184 Action Items-S-93,
S-94 and S-100

Dear Mr. Corley:

Please find attached Bechtel's reply to NRC Infraction 79-22-02 "Two Rod Ovens Not Energized" which were also documented on the two subject Consumers Power Company NCR's.

The attachment is formatted as a NRC response and is also a full response to the two subject Consumers Power Company NCR's.

Should you need any additional information, please contact Mr. Phil Falkenberg of my office.

Very truly yours,

LADreisbach

L. A. Dreisbach
Project Quality Assurance
Engineer

90007290

LAD/PEF/bss

cc: W. Bird
B. Marguglio

Attachment

JLC	
DRK	
RGW	
PRK	
DDB	
MRK	
QE	
FILE	

CONSUMERS POWER COMPANY RESPONSE

TO ITEM OF NONCOMPLIANCE

DESCRIBED IN NRC INSPECTION REPORT

(NO. 50-329/79-22) (NO. 50-330/79-22)

TWO PORTABLE ROD OVENS NOT ENERGIZED

(50-330/79-22-02)

ATTACHMENT TO CPCO NCR M-01-4-9-111 PAGE 3

Description of Noncompliance

10 CFR 50, Appendix B, Criterion V, states, in part, that, "Activities affecting quality shall be prescribed by documented instruction, procedures, . . . and shall be accomplished in accordance with these instructions, procedures, . . ."

Bechtel Quality Assurance Manual ASME Section III Nuclear Components Division 1, paragraph 5148, states in part, that, " . . . Requirements for receipt, inspection, storage, issue and return to stock of welding filler materials are in WFMC-1 . . ."

Bechtel Power Corporation Procedure Specification No. WFMC-1, Revision 6, Amendment 2, paragraph 6.5.8.1, states, in part, that, "The portable warmers shall be energized within three hours of the electrode issuance from the rod room . . ."

Contrary to the above, the inspector established the following:

a. On October 9, 1979, approximately 3:00 p.m. a portable oven with I.D. No. 288, containing approximately 30 sticks of 3/32" diameter E7018 welding rods was left unenergized in the Unit 2 Containment Building adjacent to the Emergency Personnel Hatch. The welding rods were cold to touch. The welding rods were issued to be used on weld No. M326-2880W, of Systems No. 10"-2HBC-110-H9 on drawing No. 619-2-9.

b. On October 10, 1979, approximately 2:00 p.m., a portable oven with I.D. No. 286, containing approximately 60 sticks of 3/32" and 1/8" diameter E7018 welding rods was left unenergized in the Unit 2 Containment Building at approximately elevation 611' -0" and 270° azimuth. The welding rods were cold to touch. The welding rods were issued to be used on weld No. M326-2496W, of system No. 10" -2HBC-110-H28, on drawing No. 619-2-30.

c. The portable ovens were issued to the welders at 7:00 a.m. on the days in question according to the logs kept at the rod room.

d. No welding has been performed at the time when the conditions were noted because no weld rod stub was in the stub can.

90007291

Response

The offending welders were immediately retrained by Bechtel supervision on weld rod control and emphasis was placed on portable warmer engergizing requirements. At this time Bechtel Supervision and field engineers concentrated on this subject to assure conformance of specification requirements by other craftsman. Subsequent to these incidences, by direction a documented training session was conducted by Site Management.

To preclude recurrence Bechtel Field Engineering has re-issued the "do's" and "don't" that are given to welders upon satisfactorily passing the welders qualification tests. This document is read and signed by each welder before going to the field. It has also been typed in French due to the number of Canadians on the project.

These actions have all taken place and full compliance has been achieved.

90007292

ATTACHMENT TO CPCO NCR M-01-4-9-111 PAGE 4

Bechtel Power Corporation

Interoffice Memorandum

To: Midland QA File
Midland Training File

Subject: Record of Training
Housekeeping and Equipment
Protection

File No. LAD-1162

Date: October 26, 1979

From: P. E. Falkenborg

Of: Quality Assurance

At: Midland, MI Ext. 390

Copies to: L. Davis
L. Dreisbach
O. Holman

Reference: CPCo Memo 344FQA79 (NRC Exit 10/12/79)

O. H. Holman, Project Superintendent Construction conducted the 45 minute training session/conference on Spec. FPG-7.000 Rev. 0 Para. 7.7 the requirements of the housekeeping spec. was reviewed along with the other handouts, i.e. FPS 1.300 Rev. 0 Welding-Burning and cutting procedures plus NRC Notice of Violation. Each super attending is to hold a training session with the general foreman and foreman reporting to him.

This is to be done by Friday, October 19, 1979 and attendance lists are to be made.

Subcontracts is to take this same or similar action with the major subcontractors.

He also discussed today's violation concerning Rod Ovens Not being turned on, and stressed correcting this problem.

He then discussed the need to clean concrete splashes from stainless steel surfaces and general clean-up requirements being stepped up.

A detailed conversation followed about eating areas and tool box locations and zones for housekeeping (FPS-7.000 Para. 6.0).

P. E. Falkenborg
Quality Assurance Engineer

PEF/bss

90007293

ATTACHMENT 1 TO CPCO NRC M-01-4-9-111 PAGE 5

3024, REV 1/78

OCT. 12, 1979

O. H. HOLMAN'S TRAINING SESSION FPG-7.000 PARA. 7.7 R

ATTENDEES

PHIL FAHRENBORG	BECHTEL Q.A.
BRUCE MATTHEWS	BECHTEL ELECTRICAL
[illegible]	BECHTEL SUPT.
[illegible]	Bech. Supt, Elect
[illegible]	
D. Short	BECH. MECH. ENGRG.
L OLLSEN	Bec. Civil Supt.
Wm J NATERA	Bechtel AREA Supt
Charlie Cropp	Bechtel Subcontractor
Harold Allen	" "
M Peterson	BECHTEL SUPERVISION
J Delaun	" "

90007294

ATTACHMENT TO CPEO NCR M-01-4-8-111 PAGE 6

Bechtel Power Corporation

Interoffice Memorandum

To: All Craft Welders

Subject: Job 7220 Midland Project
Rules for Test Facilities

File No.

Date: November 9, 1979

From: L. E. Davis

Of: Construction

At: Midland, MI

Ext.

Copies to

1. If you have any questions or problems, one of the Welding Engineers will try to help solve them.

2. When you come in to test, you are assigned to the test booth. If any help is needed for unloading rods, coupons, etc... you will be asked to assist.

3. At the end of the day or test, you will clean up your booth before leaving test facilities.

4. Throw the rod stubs in the rod stub bucket and at the end of the shift, throw then in the rod stub containers (55 gallon drum - yellow).

5. Keep curtains closed when grinding or welding.

6. Cleanup time is 10 minutes prior to shift quitting time.

7. You can use the grinder to grind your stops and starts only on the first pass.

8. You are to use the safety equipment provided. If there isn't any, ask the Welding Engineer.

9. Keep rod ovens plugged up.

10. Keep test tables down. Tables will be stationary, but can swivel.

11. Bench grinder will be used for Tungsten only.

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ATTACHMENT TO CPCO NRC M-01-4-9-1 PAGE 1 of 1

12. There will be no down-hill welding at anytime.

13. Do not arc the face of the coupon. Strike where you are going to weld in the groove.

14. Do not weld to or set your welding machine by welding on the test stand.

15. Do not spit on the floor or in the rod stub bucket.

16. All unused rod will be returned to the ovens.

17. Paper and trash will be put in the trash bin and not the skid box.

18. All horizontal bead patterns will be welded from the bottom up.

19. All test coupons will be tacked in position and remain so until the test position is completed.

20. Grinders will be kept off the floor. Hang them up.

21. Any infraction of these rules may result in your removal from the test facility and/or termination.

L. E. Davis

LED/KLB/JGS/mkm

Welders Signature

90007296

ATTACHMENT TO CPRO NCR MH-81-40-B-111 PAGE 3

Bechtel Power Corporatio

Interoffice Memorandum

To Aux soudeurs dans tout les métiers

Subject Règlements pour ceux qui testent

Copies to

File No.

Date November 9, 1979

From L. E. Davis

Of Construction

At Midland, MI

Ext.

1. Si vous avez des questions ou problèmes l'Ingénieur en charge S'occupera de vous aider à résoudre ces problèmes et répondre à vos questions.

2. Lorsque vous entrez pour tester on vous désigneras une table de travail (booth). Dans certaines occasions on auras besoin d'aide pour manipuler des coupons et boite d'électrodes, dans ces cas vous serez demandés d'aider.

3. A la fin de la journée ou lorsque votre test est completé, nettoyez votre table de travail (booth) et le plancher avant de partir.

4. Ne jettez pas les bouts de rods sur le plancher. Déposez les dans la chaudière qui vous est donné dans ce but. A la fin de la journée, videz cette chaudière dans le baril jaune de 55 gallon.

5. Gardez les rideaux fermés en tout temps lorsque vous travaillez.

6. Le temps du nettoyage est a 10 minutes avant la fin de la jounée.

7. Vous pouvez vous servir du grinder pour les départs et arrêts de la première passe de soudure seulement.

8. Servez vous de l'équipement de securité en tout temps, protecteu pour les yeux et la figure. Au cas ou vous n'en avez pas a votre table de travail, demandez en a votre ingénieur en charge.

9. Gardez les fourneaux portatifs connectés en tout temps.

90007297

ATTACHMENT TO CPCO NCR 79-01-4-9-111 PAGE 9

10. Gardez la table de test basse, la table doit être stationnaire mais peût être tournée.

11. La meule d'émery doit servir pour aiguiser vos tungstens seulement.

12. La soudure de haut en bas est interdite.

13. Commencez à souder dans l'angle (bevel) du coupon, pas sur la face.

14. N'Adjustez pas votre machine en soudant sur la table. Prenez une pièce de rebut (scrap).

15. Ne crachez pas sur le plancher ou dans la chaudière pour les bouts de rods.

16. Retournez au fourneau les électrodes qui n'ont pas servies.

17. Papiers et autre rebuts doivent être jettés dans la poubelle, pas dans la boite a métal.

18. Dans la position horizontal, déposez les passes du bas en haut.

19. Les coupons doivent être attachés (tacked) en position et y demeurer jusqu'à la fin de cette partie du test.

20. Ne laissez pas les outils à air (grinders) sur le plancher. Accrochez les.

21. Toute déviation a ces règlements pourrais être une cause de renvois de l'atelier de soudure et/ou être terminer.

L. E. Davis

LED/KLB/JGS/mkm

Signature du Soudeur

90007298

ATTACHMENT TO CNEO MEE MOM-44-8-111 PAGE 10

MIDLAND PROJECT
UNITS 1 & 2

GENERAL INSTRUCTIONS TO WELDERS

A. Welder Qualification

1. All Bechtel Power Corporation welders working on this project shall be qualified by Bechtel in strict accordar with the codes, job specifications, and Bechtel welding procedures.

2. After qualification, each welder will be given a welder' symbol according to his craft.

B. Before Welding

1. Before going to the rod room, the welder must have a Filler Metal Withdrawal Form (WR-6 or WR-6A) identifying the size and classification of filler material to be issued. These forms are to be signed by your foreman and shall include the welder's name and identification number, and for non-Q welding, shall include the work location. The form must also be signed by the area field welding engineer.

2. Check to see that you have the type welding filler metal specified on the Filler Metal Withdrawal Form (WR-6 or WR6A). This information can be found on each covered electrode and on the flytagged end of each bare wire.

3. Use only the filler metal issued to you for the weld or welds described on the Filler Metal Withdrawal Form (WR- or WR-6A).

4. Assure that the weld joint is properly cleaned including the removal of paint (except deoxaluminite), grease, oil and rust.

5. When grinding is required on stainless steel, use only the proper grinding tools, as directed by your foreman.

6. When filler metal (bare wire) must be cut short to facilitate welding, only the portion with the identification tag shall be used. The remaining portion must be discarded in the stub bucket and not be used for welding.

7. Assure that adjacent material and equipment are properly protected from welding heat, sparks, and slag. Particul attention shall be given to the area below the weld.

90007299

ATTACHMENT TO CPCO NCR M-01-4-9-111, PAGE 11

8. Welding to anchor bolts, rebar, containment liner plat tendon base plates, valves, pumps, tanks, vessels, and other vendor supplied equipment is prohibited unless allowed by engineering documents.

C. <u>During Welding</u>

1. Assure that the rod warmer is plugged in when at the w area.

2. Keep the rod container or rod warmer lid closed except removing filler metal.

3. Precautions shall be taken to avoid arc strikes.

4. Filler metal stubs shall be placed in the stub buckets. not place stubs in rod containers, rod warmers, or on t floor.

5. Contact your foreman or area field welding engineer if have any questions or are having problems with the joi

D. <u>After Welding</u>

1. Assure that all slag is removed from completed welds.

2. Assure that your identification symbol is placed adjace to the weld as required.

3. Assure that any arc strikes are removed.

4. At the end of each shift or upon completion of the welc welds, assure that the following is returned to the iss rod room:

   a. Rod container or rod warmers.

   b. Unused filler metal.

   c. Filler Metal Withdrawal Forms in the plastic envelo except for welds in "Q" piping and supports.

   d. Stub bucket with filler metal stubs for disposal in designated containers.

<u>Violations of the above instructions will result in disciplinary</u>

action

90007500

ATTACHMENT TO CPCO NCRM-81 0-4-9-111 PAGE 2

MIDLAND PROJECT
UNITS 1 & 2

INSTRUCTIONS GENERALES POUR SOUDEURS

A. Qualification Du Soudeur

1. A tous les soudeurs de Bechtel Power travaillant sur le project a Midland, devront etre qualifies par Bechtel en accord avec les codes, specifications du project et des procedures en soudure de la Bechtel.

2. Apres s'etre qualifie, chaque soudeur lui sera donne un symbol d'apres son metier.

B. Avant De Souder

1. Avant d'aller a la rod room, le soudeur doit avoir en sa possession une requisition: forme (WR-6 ou WR-6A) indentificant la sorte, le diametre et la classification des electrodes qui vous serontdonnes. Ces formes doivent etre signes par votre contre-maitre et doivent inclure votre nom, numero d'identification (symbol). Pour la soudure non-Q la location du travail devra etre specifiee sur la forme. La forme doit aussi etre signee par l'Ingenieur de soudure en charge de l'endroit ou le travail doit etre effectue.

2. Verifiez les electrodes qu'on vous donne, les informations sont sur la forme (WR-6-|A). Les electrodes sont etampes, et ceux qui n'ont pas de flux ont un drapeau indentificateu

3. Employez seulement les electrodes qui vous ont ete donnes d'apres la forme WR-6 - WR-6A.

4. Assurez vous que le joint que vous allez souder est nettoye. Ce-ci inclus la peinture, graisse, Huile, rouille, (deoxaluminite est une exception).

5. Lorsque vous avez a grinder sur le stainless steel, employez les outils designes a cet effet. EX: les roues brosse d'acier sont marques avec peinture blanche. Si vous n'etes pas certain demandez a votre contre-maitre.

6. Dans certains cas vous aurez a couper un electrode en deux, employez la partie avec l'identification seulement. L'autre partie ne doit pas servir pour souder jetez la dans la chaudiere (stub bucket).

7. Assurez vous que le materiel ou piece d'equipement sont proteges, contre la chaleur etincelles. Une attention speciale pour ce qui en dossous.

8. Souder sur boulons d'encrage, acier d'armature, mur du containement, plaque de base pour tendons, valves, pompes tanks, vesseaux et autre equipments fournis par d'autre compagnies est defendu, a moins que ce soit permit par un document venant d'un Ingenieur.

C. Lorsque Vous Soudez

1. Lorsque vous arrivez a lendroit de votre travail, connectez votre chauffe-electrode portatif.

2. Gardez le couvercle du chauffe-electrode ferme, ouvrez le seulement qu'au besoin.

3. Precautions doivent etre prise pour eviter les arc-strikes

4. Vos bout d'electrode doivent etre dans la chaudiere. Ne les laissez pas sur le plancher ou dans le chauffe-electro

5. Si vous avez des problemes avec le joint que vous soudez, n'esitez pas, voyez votre contre-maitre ou votre Ingenieur de soudure.

D. SOUDURE COMPLETEE

1. Assurez vous que toute la slag est enlevee et bien brosse.

2. Assurez-vous que vous avez etampes votre symbol d'indentification adjacent a votre soudure comme requis.

3. Assurez-vous que les "Arc-strikes" sont enleves.

4. A la fin de votre journee de travail ou apres avoir completer la soudure assurez vous que les items qui suivent soient retournes a la rod room qui vous l'a donne.

   a. Contenant d'electrodes ou chauffe electrodes.

   b. Toutes electrodes qui n'ont pas servis.

   c. L'envelope de plastique contenant les formes WR-5 ou WR-6A, a l'exception des soudures qui sont listes "Q" pour tuyaux ou supports.

   d. Voir a vider votre chaudiere de bouts d'electrode dans les contenants designes a cet effet.

Violation a ces reglements ci-haut resultera a une action disciplin

ATTACHMENT TO CPCO NCR M-01-4-9-111 PAGE 14

ATTACHMENT TO CPCO NCR M-01-4-9-111 PAGE 1/5

Bechtel Power Corporatic

Interoffice Memorandum

To

Subject Job 7220 Midland Project General Instructions to Welders

Copies to

File No.

Date November 1, 1979

From Signee Below

Of Crafts

At Midland, MI. Ext. 216

I have read and understand the General Instructions to Welders.

Welder's Name

Craft Badge No

Date

90007 03

5024, REV 1/78

Bechtel Power Corporation

Interoffice Memorandum

To: Aux Surintendants de Tout Les Métiers

File No.

Subject: Job 7220 Midland Project
Instruction Generales Pour Soudeurs

Date: November 9, 1979

From: Soussigné

Of: Metier

Copies to

At: Midland, MI

Ext.

J'ai lù et compris les instructions générales des soudeurs.

Nom Du Soudeur

Metier Badge Symbol

Date

90007504

ATTACHMENT TO CPCO NCR M-01-4-9-M PAGE 16

5024, REV 1/78

Consumers Power Company

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

AUDIT FINDING REPORT

"AS IS" CONDITION VERSUS "AS REQUIRED" / "AS NEEDED" CONDITION WITH REFERENCES:

Paragraph 2.6 of PQCI 7220/E-4.0 Rev 3 requires that the Inspector verify that the cable is installed in the correct vias as specified on the scheme cable card (ie, highlight each pulled via on fron of card).

Contrary to the above, the following vias located at switchgear 1A05 and 2A05 are not identified: 1ASL131, 1ASL133, 1ASL138, 1ASL141, 1ASL142, 2ASL132, and 2ASL133. Cables that use these vias are 1AMU026 B, 1AA0512 F, 1AA0512 E, 1AA0511 U, 1AA0511 K, 1AA0511 L, 1AA0511 N, 1AW016 B, 1AA0508 E, 1AW014 B, 2AA0501 A, 2AA0502 N, 2AA0502 P, and 2AA0502 S. These Inspection Records are closed and are in the QC vault.

AFR SER NO: M-01-12-9-04

PROJ/DEPT AUDITED: Bechtel QC

DATE OF ORIGINATION: 3-14-79

FILE NUMBER: 18.4.3.4, 18.4.3.6

DISTRIBUTION:

WLBarclay, JFNewgen, WRBird, RASimanek, TCCooke, DATaggart, JLCorley, LADreisbach, RHermeston, SHHowell, DRJohnson, GSKeeley, BWMarguglio, PAMartinez, JMilandin, DBMiller, WGMoring

RECOMMENDED CORRECTIVE ACTION:

It is recommended that all vias on switchgear units 1A05 and 2A05 be identified on the switchgear with the proper color channel marking.

CORRECTIVE ACTION COMMITMENT:

DATE OF C/A COMPLETION:

DATE OF C/A EFFECTIVENESS:

ORG. RESP FOR C/A: Bechtel Construction

PERSON MAKING C/A COMMITMENT:

METHOD OF VERIFICATION:

All vias are properly marked on top of Switchgear 1A05 and 2A05 with the correct color channel markings and this was verified by a visual check.

IS AF REPORTABLE PER 50.55(e)? YES [ ] NO [X]

IF "YES", DATE OF REPORT TO NRC: NA

IF "YES", TIME OF REPORT TO NRC: NA

IF "YES", NAME OF NRC OFFICIAL TO WHOM REPORTED: NA

IF "YES", WHO MADE REPORT: NA

AFR ORIGINATOR'S SIGNATURE: Eugene L Jones

SUPERVISOR'S SIGNATURE:

C/A VERIFICATION SIGNATURE: Eugene L Jones

VERIFICATION DATE: 11/7/79

90007 005

CORRECTIVE ACTION REPORT

(1) D - AEG - B - 001

(2) Description of Deficiency

See Attached Sheet

(✓) Con't on Attachment

(3) Recommended Corrective Action and Retest

As on Attached sheet

(✓) Con't on Attachment

(4) Related Documents and References

FUEL STORAGE MAINTENANCE FUNCTIONAL NOT ELECTRICAL SCHEMATIC 7220-~~M430~~ M429 SE-28-2

FUEL STORAGE BRIDGE & TROLLEY CRT ELECTRICAL SCHEMATIC 7220-M429-24-2

(5) [X] Deficiency
[ ] Design Chg
[ ] Troubleshoot
[ ] Maintenance
[ ] Retest Only

(6) Initial: B P D

ACTION Subsequent:

(7) Cause: 01

Category: 02

[ ] Retest Req
[X] Q-Listed

NRC Reportability 10CFR50.55e (8)
[✓] Not Reportable — Sue 11/17/79
[ ] Reportable;QA Notified

(9) Signature		Date	Time
Orig:	Stephen L. Chesbro	11/1/79	0900
FE/TE:	[illegible]	11/1/79	1330
PS/PTS:	[illegible]	11/29/79	1500

(10) Corrective Action or Response:

Action Organization Representative

Date

(11) Retest Complete — Date
TE:

Completion Review Signature — Date
QA:
TE:
PS/PTS:

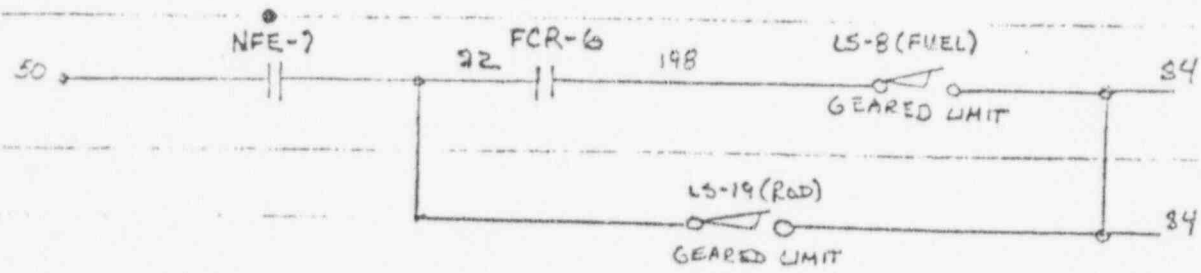
(✓) Con't on Attachment

90007_06

CAR 0-KEG-E-001

1. In the lower left hand corner of the Fuel storage multiple function mast circuit schematic (lines 82-84) the geared limit switch labeled as "LS-19(FUEL)" should be "LS-19(ROD)" to agree with the limit switch designations above the title block area.

2. In the same area as item 1. above are two contacts FCR-6 and NFE-7. These contacts appear to be reversed or the section wiring otherwise ~~improperly~~ improperly depicted. As it presently is depicted the "LS-19(ROD)" geared limit switch would only serve a function if the "grapple mode switch" (SSW-3) were in the "fuel" mode and would not serve its intended dual function (along with the rod grapple low load interlock) to allow rod grapple engagement/disengagement or latch retraction/extention when handling control or burnable poison rods over the new fuel Elevator. The section should be redrawn as follows:



In addition, the blocks indicating contacts for the relays should be changed to reflect the above (upper Right hand corner of dra[illegible] for both the multiple function mast and fuel storage bridge and trolley circuit schematic).

90007507

CORRECTIVE ACTION REPORT

Unit	S/U	System	Discip	Serial
1	-	KEI	- E	- 001

(1)

(2) Description of Deficiency

See Attached Sheet 11/5/79

(✓) Con't on Attachment

(3) Recommended Corrective Action and Retest

As on Attached Sheet 11/5/79

(✓) Con't on Attachment

(4) Related Documents and References

MIDLAND NO 1 TRANSFER SYSTEM ELECTRICAL SCHEMATIC — 7220-M130-41-2
FUEL STORAGE BRIDGE & TROLLEY CIRCUIT ELECTRICAL SCHEMATIC — 7220-M129-24-2
FUEL STORAGE BRIDGE & TROLLEY ELECTRICAL SCHEMATIC — 7220-M129-28-2
MIDLAND NO 1 MAIN BRIDGE & TROLLEY ELECTRICAL SCHEMATIC — 7220-M129-25-2
[illegible] — 7220-M129-22-2

(5)
- [X] Deficiency
- [ ] Design Chg
- [ ] Troubleshoot
- [ ] Maintenance
- [ ] Retest Only

(6) Initial: B P D

Subseqnt:

ACTION

(7) Cause: 01

Category: 05

- [ ] Retest Req
- [✓] Q-Listed

NRC Reportability 10CFR50.55e

(8)
- [✓] Not Reportable — E M Evans 11/14/79
- [ ] Reportable;QA Notified

	Name	Date

(9)

	Signature	Date	Time
Orig:	[illegible]	11/5/79	1700
FE/TE:	[illegible]	11/14/79	1700
PS/PTS:	[illegible]	19 NOV 79	1500

(10) Corrective Action or Response:

CONSUMERS POWER COMPANY
RECEIVED
NOV 2 1979
FIELD QUALITY ASSURANCE
MIDLAND, MICHIGAN

Action Organization Representative

Date

(11) Retest Complete

	Date
TE:	

Completion Review Signature

	Date
QA:	
TE:	
PS/PTS:	

(✓) Con't on Attachment

90007508

CAR 1-KEI-E-001

1. On the Midland No 1 Transfer System Electrical Schematic section D-2 and I-1 two contacts are incorrectly identified as "LS-3C" and "XFL-1". These contacts should be changed to LS-[illegible] and XFL-4 so as to be in agreement with the Fuel Storage Bridge and Trolley Circuit and Fuel Storage Multiple Function Mast Electrical Schematics.

2. On the Midland No 1 Transfer System Electrical Schematic section D-11 contact RT-4 is represented as a normally open/energized closed contact. This is incorrect as RT-4 is a normally closed/energized open contact. The contact should be changed to normally closed/energized open contact to agree with the Midland No 1 Main Bridge & Trolley Circuit. 11/5/79

3. On the Midland No 1 Transfer System Electrical Schematic section D-11 the symbols under contacts RT-4 and GU-3 are reversed. RT-4 should have a (⊠) under it and GU-3 should have a (⊠) under it.

90007 09

CORRECTIVE ACTION REPORT

① Unit	S/U	System	Discip	Serial
2	-	KEI	- E -	002

② Description of Deficiency

See attached sheet

[X] (✓) Con't on Attachment

③ Recommended Corrective Action and Retest

As on attached sheets

[X] (✓) Con't on Attachment

④ Related Documents and References

Midland No 2 Tendder System Electrical Schematic 7220-M1,30-40-2
Fuel Storage Multiple Function Mast Electrical Schematic 7220-M1,29-28-2
Fuel Storage Bridge & Trolley Ckt Electrical Schematic 7220-M1,29-24-2
Midland No 2 Main Multiple Function Mast Electrical Schematic 7220-M1,29-27-2

⑤	⑥ Initial	⑦ Cause	NRC Reportability 10CFR50.55e	⑧
[X] Deficiency	B P D	01	[✓] Not Reportable	EAME 11/19/79
[ ] Design Chg			[ ] Reportable;QA Notified	
[ ] Troubleshoot	Subseqnt	Category		
[ ] Maintenance		02		
[ ] Retest Only		[ ] Retest Req		
		[X] Q-Listed		

ACTION

⑨ Signature	Date	Time
Orig: Stephen A. Shah	11/1/79	0800
FE/TE: [illegible]	11/1/79	1330
PS/PTS: [illegible]	12/11/79	1500

⑩ Corrective Action or Response:

CONSUMERS POWER COMPANY
RECEIVED
NOV 21 1979
FIELD QUALITY ASSURANCE
MIDLAND, MICHIGAN

Action Organization Representative

Date

⑪ Retest Complete	Date
TE:	
Completion Review Signature	Date
QA:	
TE:	
PS/PTS:	

[ ] (✓) Con't on Attachment

90007010

CAR 2-KEI-E-002

1.

In section D-7 and J-1 of the Midland No. 2 transfer system electrical schematic the limit switch and contact numbers depicted in these areas as "LS-33" and "XFL-2" do not agree with the fuel storage multiple function mast schematic or the fuel storage bridge and trolley circuit schematic. The correct designations should be LS-36 and XRL-5 respectively.

2.

a. In section D-11 of the Midland No 2 transfer system electrical schematic contact RT-4 is incorrectly depicted as a normally open/energized closed contact. The representation should be changed to show the contact as a normally closed/energized open contact as depicted elsewhere on the drawing and on ~~the~~ the main bridge and trolley circuit schematic.

b. The symbol designating the relay RT is as depicted here (⌑) and is incorrect and should be changed to (□) to correctly reference the Unit 2 main bridge and trolley circuit schematic.

c. The symbol under contact GU-3 (located just below RT-4) is also incorrect — (⌑) and should be changed to reference the Unit 2 Main, multiple Function mast circuit schematic as follows ⌑.

90007511

CORRECTIVE ACTION REPORT

(1) Unit - S/C System - Discip - Serial

[illegible] - [illegible] - [illegible] - [illegible] - 0 0 2

(2) Description of Deficiency

The Termination at 2E02 [illegible] Rev 2 [illegible]

[illegible] the termination are wrong for the [illegible] systems

2T06 at 2E02

1T06 at 1E06

(√) Con't on Attachment

(3) Recommended Corrective Action and Retest

Update E-200 to correct the correct termination to ~~[illegible]~~ consistent with polarity

(√) Con't on Attachment

(4) Related Documents and References

7220-E-200 Rev. 37

7220-E-82

(5) ☒ Deficiency ☐ Design Chg ☐ Troubleshoot ☐ Maintenance ☐ Retest Only

(6) Initial: B.P.D

Subsequent:

ACTION

(7) Cause: 01

Category: 06

☐ Retest Req

☒ Q-Listed

NRC Reportability 10CFR50.55e

☒ Not Reportable [illegible] 19 Nov 79

☐ Reportable; QA Notified

(8)

(9)	Name	Date	Time
Orig:	[illegible]	[illegible]	[illegible]
FE/TE:	[illegible]	[illegible]	0730
PS/PTS:	[illegible]	[illegible]	1500

(10) Corrective Action or Response:

CONSUMERS POWER COMPANY
RECEIVED
NOV 21 1979
FIELD QUALITY ASSURANCE
MIDLAND, MICHIGAN

Action Organization Representative

Date

(11) Retest Complete

TE: Date

Completion Review Signature

QA: Date

TE:

PS/PTS:

(√) Con't on Attachment

9000712

CORRECTIVE ACTION REPORT

(1) Unit S/U System Discip Serial: 2 – S C A – I – 0 1 0

(2) Description of Deficiency

Several discrepancies exist between level setting diagram J-612 (J-611) and Babcock and Wilcox documentation. This involves steam generator level tap locations and level ranges.

Level Setting Diagram shows the following:
Operate Range: 116 7/16" between taps (-35" to + 81 7/16")
Startup Range: 96" between taps (-306 11/16" to -210 11/16")
Low Alarm: 12"
B&W Documentation show the following (in composite form):
Operate Range: 0-100% = 292" between taps (-210 11/16" to + 81 7/16")
Startup Range: 0-250" = 388" between taps (-306 11/16" to + 81 7/16")
Low Alarm: 24"
Note: Startup range is suppressed 138", so that only the lower 250" are utilized.

(√) Con't on Attachment

(3) Recommended Corrective Action and Retest

As the equipment supplied by B&W is designed for B&W documented ranges, and as the two ranges shown provide overlap between ranges, change level setting diagram to reflect correct ranges.

(√) Con't on Attachment

(4) Related Documents and References

Level Setting Diagram J-612 (J-611) SH 1 & 3 rev 0
B&W Specification 08.1048000005-04
Bailey NNI Vendor Manual, M1.35-739
OMSG Outline Drawing M1.6-1-10

(5) [X] Deficiency
[ ] Design Chg
[ ] Troubleshoot
[ ] Maintenance
[ ] Retest Only

(6) Initial: B P D
Subsequent: A C T I O N

(7) Cause: 0 0 1
Category: 0 0 4
[ ] Retest Req
[✓] Q-Listed

NRC Reportability 10CFR50.55e
[✓] Not Reportable EMC 11/2/79 (8)
[ ] Reportable;QA Notified

(9) Signature

	Name	Time/Date Date	Time
Orig:	[illegible]	[illegible]	1251
FE/TE:	[illegible]	[illegible]	1200
PS/PTS:	[illegible]	[illegible]	0700

(10) Corrective Action or Response:

Action Organization Representative

Date

CONSUMERS POWER COMPANY
RECEIVED
NOV 12 1979
FIELD QUALITY ASSURANCE
MIDLAND, MICHIGAN

(11) Retest Complete

	Date
TE:	
Completion Review Signature	Date
QA:	
FE/TE:	
PS/PTS:	

(√) Con't on Attachment

90007013

RPM-5

CORRECTIVE ACTION REPORT

(1) Unit S/U System Discip Serial
1/2 - GJA - I - 004

(2) Description of Deficiency

BLC-6679, dated 10-13-~~79~~ 78 MTB stated IWP flow measurements could be obtained with output current meters provided with the flow transmitters. Subsequent to BLC-6679 transmitter vendor selection was changed to Rosemount which have no output current meters or flow indication. Flow indication must be provided for Section XI requirements.

(√) Con't on Attachment

(3) Recommended Corrective Action and Retest

Add local flow indication to 1FT-5725 A&B and 2FT-5725 A&B. Instrument requirements shall be in accordance with the Summer 1978 Addenda of ASME B&PV Code, Section XI, Article IWP-4000.

(√) Con't on Attachment

(4) Related Documents and References

BLC-6679 dated 10-13-~~79~~ 78 MTB NR# J-245
M-457 Sh 2, Rev 3 J-204
M-457 Sh 3, Rev 4

(5) [X] Deficiency
[ ] Design Chg
[ ] Troubleshoot
[ ] Maintenance
[ ] Retest Only

(6) Initial: B P D
Subsequent:
ACTION

(7) Cause: 03
Category: 05
[ ] Retest Req
[√] Q-Listed

NRC Reportability 10CFR50.55e (8)
[√] Not Reportable MTB 11/21/79
[ ] Reportable;QA Notified

	Name	Date	Time
(9) Signature			
Orig:	T A Peterson	11/31/79	
FE/TE:	[illegible]	11/21/79	9:53
PS/PTS:	[illegible]	11/19/79	0700

(10) Corrective Action or Response:

Action Organization Representative

Date

CONSUMERS POWER COMPANY
RECEIVED
NOV 12 1979
FIELD QUALITY ASSURANCE
MIDLAND, MICHIGAN

(√) Con't on Attachment

(11) Retest Complete — Date
TE:

Completion Review Signature — Date
QA:
TE:
PS/PTS:

90007 14

CAR ATTACHMENT A
COST/BENEFIT ANALYSIS

ESTIMATED COST:

BENEFITS ($):

BENEFITS (If not able to assign $):

Operational readiness testing per Section XI is a requirement of 10 CFR 50.55a(g) and is incorporated via Technical Specifications. The Safety related function of a pump can be demonstrated by these operability test requirements, which includes measuring pump flow.

90007315

Analysis Performed By — Date 10/23/79

Superintendent — Date

CORRECTIVE ACTION REPORT

① Unit	S/U	System	Discip	Serial
2	-	[illegible]	- [illegible] -	[illegible]

② Description of Deficiency

THE [illegible] OF [illegible] ON [illegible] M40[illegible] (GROUP [illegible]) IS [illegible] MARKED.

☐ (✓) Con't on Attachment

③ Recommended Corrective Action and Retest

THE ABOVE LINE ON SH1A SHOULD BE MARKED SH2A (E-5)
" " " " SH2A " " " SH1A (B-2)

☐ (✓) Con't on Attachment

④ Related Documents and References

M40[illegible]1A(Q), M40[illegible]2A(Q)

⑤	⑥ Initial	⑦ Cause	NRC Reportability 10CFR50.55e	⑧
☐ Deficiency	B.P.D	01	☒ Not Reportable	[illegible]
☐ Design Chg	Subseqnt	Category	☐ Reportable;QA Notified	
☐ Troubleshoot	03.01	05		
☐ Maintenance	8.0			
☐ Retest Only		☐ Retest Req		
		☒ Q-Listed		

⑨ Signature	Name	Date	Time
Orig:	[illegible]	[illegible]	[illegible]
FE/TE:	[illegible]	[illegible]	[illegible]
PS/PTS:	[illegible]	[illegible]	[illegible]

⑩ Corrective Action or Response:

90007316

CONSUMERS POWER COMPANY
RECEIVED
NOV 2 1 1989
FIELD QUALITY ASSURANCE
MIDLAND, MICHIGAN

Action Organization Representative

_____ Date _____

⑪ Retest Complete	Date
TE:	
Completion Review Signature	Date
QA:	
FE/TE:	
PS/PTS:	

☐ (✓) Con't on Attachment

CORRECTIVE ACTION REPORT 101-031

(1) Unit	S/U	System	Discip	Serial
C	-	4-4-4	- E -	031

(2) Description of Deficiency THE CURRENT TRANSDUCERS ARE WIRED IN A MANNER THAT COULD RESULT IN A CT BEING OPENED CIRCUITED UNDER CERTAIN CONDITIONS. IF ONE OF THE TRANSDUCERS WERE REMOVED WITHOUT OPENING ALL THREE CUTOUT SWITCHES THE OPPOSITE PHASE CT COULD BE OPEN CIRCUITED. SEE ATTACHED SKETCH. THIS IS A SAFETY HAZARD. THIS APPLIES TO ALL 4160 VOLT (AC) SWITCHGEAR

11-27-79

(√) Con't on Attachment

(3) Recommended Corrective Action and Retest

REWIRE TRANSDUCERS AND CORRECT [illegible] (BOTH CT AND VENDOR)

11-27-79 11-27-79 11-27-79

(√) Con't on Attachment

(4) Related Documents and References

E705-985-3 + E53

(5)	(6) Initial	(7) Cause	NRC Reportability 10CFR50.55e (8)
[X] Deficiency	BPD	0.03	[X] Not Reportable — 11-27-79
[ ] Design Chg	Subsequnt	Category	[ ] Reportable;QA Notified
[ ] Troubleshoot		0.07	
[ ] Maintenance		[X] Retest Req	
[ ] Retest Only		[X] Q-Listed	

ACTION

(9) Signature	Name	Date	Time	
Orig:	[illegible]	[illegible]	3:15	P
FE/TE:	[illegible]	11-27-79	0720	A
PS/PTS:	[illegible]	[illegible]	1035	

(10) Corrective Action or Response:

90007317

Action Organization Representative

Date

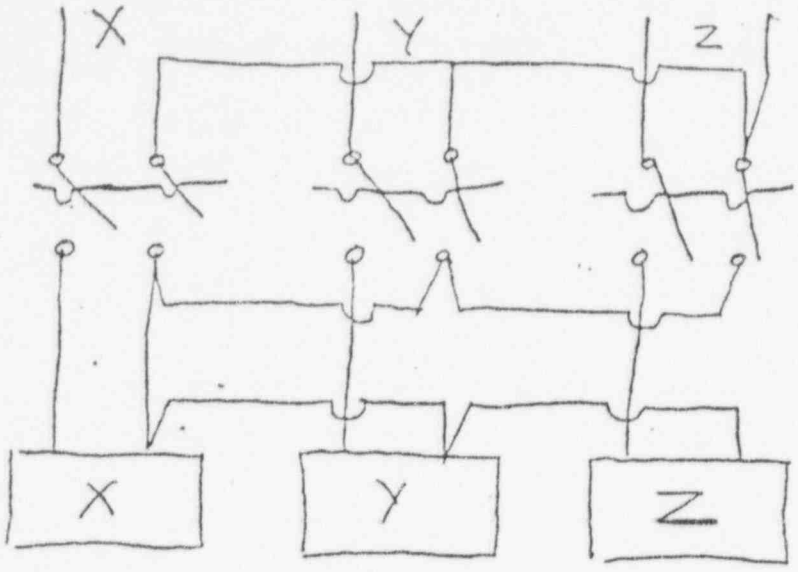
CONSUMERS POWER COMPANY
RECEIVED
NOV 28 1979
FIELD QUALITY ASSURANCE
MIDLAND, MICHIGAN

(√) Con't on Attachment

(11) Retest Complete	Date
TE:	
Completion Review Signature	Date
QA:	
FE/TE:	
PS/PTS:	

CAR 0-101-E-0

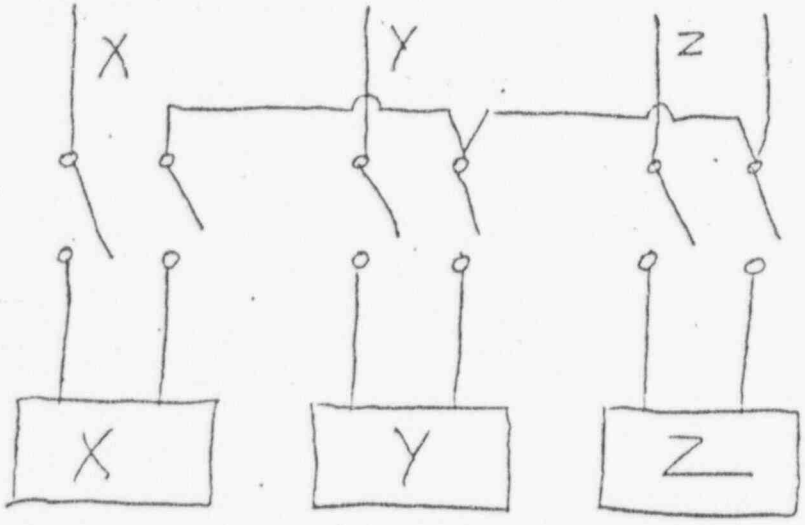
4160 VOLT SWITCH GEAR (Q)
INCOMMING COMPARTMENT (01)



SHORTING TYPE CUTOUT TEST SWITCH

TRANSDUCERS

AS WIRED



SHORTING TYPE CUTOUT TEST SWITCH

TRANSDUCERS

RECOMMENDED METHOD

(X phase transducer removal for repair/recalibrat. would open neutral path for Y & Z phase transducers - W Paine)

90007018

R Ellen

CORRECTIVE ACTION REPORT

(1) 2 - NKA - E - 212

X

(2) Description of Deficiency

During the initial charging of the plant battery systems, the Exide field representative has recommended that the batteries be maintained at a float voltage of 2.25 volts per cell (135.0 volts/bank) rather than at the CPCo recommended value of 2.17 volts per cell (130.2 volts/bank). Additionally, this new value exceeds the recommended float voltage range specified in Section 15 of the Exide Instruction Manual 58.11 (E12-53-1).

X (✓) Con't on Attachment

(3) Recommended Corrective Action and Retest

Consult with Exide, if necessary, and provide concurrence with the 2.25 VPC float voltage or provide a voltage level at which the plant batteries should be floated.

( ) (✓) Con't on Attachment

(4) Related Documents and References

1) Exide Instruction Manual 58.11 (E12-53-1)
2) Ltr from MLJohnson to RHeimann, dtd 8/17/78, Serial # MLJ 50-78 (ATT)

BPD

(5) [X] Deficiency
[X] Design Chg
[ ] Troubleshoot
[ ] Maintenance
[ ] Retest Only

(6) Initial: C P E
Subsequent:
ACTION

(7) Cause: 4 0
Category: 0 5
[ ] Retest Req
[X] Q-Listed

NRC Reportability 10CFR50.55e (8)
[X] Not Reportable Patrick P. Devine 17 Sep 79
[ ] Reportable;QA Notified

(9) Signature	Name	Date	Time
Orig:	Patrick P. Devine	9/17/79	1420
FE/TE:	[illegible]	[illegible]	1500
PS/PTS:	[illegible]	[illegible]	[illegible]

(10) Corrective Action or Response:

Per the attached letter dated 19 June 1979 and phone conversations with Mike Johnson CPco we will operate at 2.25 VPC.

90007319

Action Organization Representative
Patrick P. Devine Date 9/25/79

(11) Retest Complete
TE: N/A

Completion Review Signature	Date
QA: [illegible]	[illegible]
TE: [illegible]	[illegible]
PS/PTS: [illegible]	[illegible]

( ) (✓) Con't on Attachment

QA

Consumers Power Company

General Offices: 212 West Michigan Avenue, Jackson, Michigan 49201 • Area Code 517 788-0550

August 17, 1978
MLJ 50-78

Mr Richard Heimann
Exide Power Systems Division
12717 Prospect
Dearborn, MI 48126

As we discussed over the telephone, the staff for the Midland Nuclear Plant is in the process of preparing operating and maintenance procedures for the station batteries (four 60-cell, Type 2GC-17 and two 120-cell, Type 2GC-23). We would like to treat these new batteries the same as other batteries in our power plants and substations. Our present practice is to float at the lower recommended voltage and equalize charge once a month. This we feel gives us a high degree of surveillance of battery condition and makes the maintenance charging routine so that it is less likely to be overlooked. Specifically, we intend to float the Midland batteries at 2.17 VPC and equalize at 2.33 VPC monthly. We will daily monitor pilot cell voltage and gravity and monthly check all cells. Our questions are as follows:

1. Is a monthly equalize charge too frequent for these particular batteries? It is our intent to insure that the batteries are kept in a fully charged condition. In addition, we would like to maximize battery life.

2. The recommended duration of the equalize charge according to the instruction book is 72 hours (Page 9, Section 58.01). This seems overly long, since we intend to equalize monthly. We normally equalize for 24 hours on our antimony batteries. We would like a clarification of the recommended equalize charge duration.

3. For the fully charged condition for these cells, what are the upper and lower limits for individual cell voltages and specific gravity? We will apply the lower limits as limiting conditions for operation.

Michael L Johnson

Michael L Johnson
Senior Engineer - M&AS

82016

90007 20.

CC: JLRuthven

EXIDE POWER SYSTEMS DIVISION
ESB INCORPORATED
12717 PROSPECT STREET, DEARBORN, MICHIGAN 48125
(313) 561-0400

October 30, 1978

Michael L. Johnson
Senior Engineer - M & AS
Consumers Power Company
212 West Michigan Avenue
Jackson, Mi. 49201

Our apologies for the delay in responding to your letter.

I am [illegible] our Section 58.11, "Installing and Operating "G" Type Exi[illegible]ary Batteries." In addition, engineering comments from Divisi[illegible] offices are as follows:

a) Equalizing charge - No longer necessary. Equalize when needed per paragraph 16d of Section 58.11

b) Floating at 2.17 VPC is OK. See paragraph 15c.

c) Monthly equalizing charges under normal circumstances would be too much. The recommended procedures for equalizing may be found in paragraph 16 and 11g.

d) See Table A on page 16 for Specific Gravity Ranges. There is really no upper limit in cell voltage and the lower limit would be no more than .05 volts when floated at 2.17 VPC. See paragraph 16D, 2 and 3.

I trust this information will be of assistance to you. If we can be of any further help, please contact us.

EXIDE INDUSTRIAL BATTERY DIVISION

Richard Heimann
District Manager

gem
attach.

90007521

EXIDE INDUSTRIAL BATTERY DIVISION
ESB INCORPORATED

12717 PROSPECT STREET, DEARBORN, MICHIGAN 48126

(313) 581-0400

ESB Ray-O-Vac

June 19, 1979

Consumers Power Company
Testing
Midland Plant
Midland, Michigan 48640

ATTN: Mr. Pat Devine

RE: Project 7220 - Midland Nuclear Plants 1 & 2

Gentlemen;

With reference to your verbal request during my visit on June 15, 1979, in regards to float voltage for the GC-17 and GC-23 cells on site.

Per our Section 51.50 "Exide Calcium Flat Plate Type GC" (attached), float systems at recommended 2.25 volts per cell. Floating at 2.25 volts per cell will afford you optimum life and service for your applications.

Exide battery systems involved: 1D01, 1D02, 2D01 and 2D02 consisting of GC-17 cells, and 1D03A, 1D03B, 2D03A and 2D03B consisting of GC-23 cells.

Respectfully submitted,

Rollie J. Boorsma

Rollie J. Boorsma
Service Engineer
Exide Industrial Battery Division
E S B Ray-O-Vac

90007 22

Exide

CORRECTIVE ACTION REPORT

(1) Unit S/U System Discip Serial

(2) Description of Deficiency

(√) Con't on Attachment

(3) Recommended Corrective Action and Retest

CORRECT PROT

(√) Con't on Attachment

(4) Related Documents and References

E76 S4 9 REV 3 + E76 S410 REV 0

(5) [X] Deficiency
[ ] Design Chg
[ ] Troubleshoot
[ ] Maintenance
[ ] Retest Only

(6) Initial: BPD
Subseqnt:
ACTION

(7) Cause: 01
Category: 02
[ ] Retest Req
[X] Q-Listed

NRC Reportability 10CFR50.55e
[X] Not Reportable
[ ] Reportable;QA Notified

(8) Name Time/Date

(9) Signature

	Date	Time
Orig:		
FE/TE:		
PS/PTS:		

(10) Corrective Action or Response:

90007023

Action Organization Representative

Date

CONSUMERS POWER COMPANY
RECEIVED
DEC 6 1979
FIELD QUALITY ASSURANCE
MIDLAND, MICHIGAN

(√) Con't on Attachment

(11) Retest Complete — Date
TE:

Completion Review Signature — Date
QA:
FE/TE:
PS/PTS: