

NONCONFORMANCE-REPORT LOG & STATUS BOOK

PROJECT NO. 7220

REPORT AS OF _____
PAGE COMPL. <u>1/11</u>
Q.C. ENG. SIGN. <u>[Signature]</u>

CR NO.	ORIG. DATE CLOSE DATE	PREPARED BY	NONCONFORMANCE DESCRIPTION/REMARKS	SOURCE	STATUS				
		CLOSED BY		DISPOSIT.	ROUTE	XMTD	REPLY	RETD	
C-1	7-12-73	Dick Grote	Wall dowels and Access Tendon Gallery Slab, Unit 2. With sketches attached.	Field	PE			Re-issued	
	8-20-73	Buck Kinney		PE	AA			on C-1-1	
C-1-1	7-12-73	Dick Grote	Wall dowels and Access Tendon Gallery Slab. Attached Sketches.	Field	PE	7-12-73		8-14-73	
	8-20-73	Buck Kinney		PE	AA				8-20-73
C-2	9-7-73	Buck Kinney	#7 Rebars in Containment #1 are Undersized		PE			0-1-73	10-4-73
	10-4-73	Buck Kinney		PE	AA				
C-3	9-12-73	Steve Grant	28ea #9 Rebars cut off @ 582'-6" to set certain Columns for supporting frame. Reactor Bldg. #1	Field	PE	9-13-73		0-5-73	10-9-73
	10-9-73	Steve Grant		PE	AA				
C-4	9-28-73	Clay Clark	Liner Plate S-1-5-2-1 weld cracked after Application of prime coating.	Field	PE	10-1-73			-73
	1-11-74	M. P. Hendrick		PE	AA			10-5-73	
C-5	9-28-73	Steve Grant	Trumplates by INRYCo in violation of documentation Requirements	Field	PE	10-1-73			-73
	1-30-74	T. E. Valenzano		PE	AA			10-5-73	
C-6	10-4-73	Clay Clark	Liner Plate S-1-14-U-1 Mill Stamped Numbers and Vendor Stamped Numbers do not match.	Field	PE	10-4-73			
	11-5-73	Clay Clark		PE	AA			10-15-73	
C-7	10-8-73	Richard Grote	Pour No. CC(575)a, Ticket 11787, 6.1% Air & 5 1/2" Slump. Pour CC(581.25)a, Tickets 11794, 11795, 11796 Air Content 2.1%, 2.6%, & 2.5% respectively.	Field	PE	10-15-73			-73
	12-7-73	Richard Grote		PE	AA			11-23-73	
C-8	10-8-73	Richard Grote	Pour No. A(574)a, Ticket 11711, Low Air Content & 11712, No Testing.	Field	PE	10-15-73			-73
	11-30-73	S. Graham		PE	AA			11-28-73	
C-9	10-29-73	Clay Clark	Liner Plate S1-7-U1 Mill Stamped Numbers and Vendor Stamped Numbers do not match.	Field	Mat'l Spvsr. Site	10-29-73			-75
	11-14-73	Clay Clark						11-13-73	
C-10	10-29-73	Gary W. Knoll	1 1/2" Concrete Aggregate failed gradation. U.S. Test- ing did not retest or notify Dechtel.	Field	PE	10-29-73			-73
	11-29-73	Gary W. Knoll		PE	AA			11-23-73	
C-11	11-6-73	Steve Grant	#18S, Grade 60 rebar, heat tests run by independent lab.	Field	PE	11-9-73			-73
	11-30-73	Steve Grant		PE	AA			11-15-7	

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		CLOSED BY		DISPOSIT.	ROUTE	XMTD	REPLY	RETD	
C-12 ✓	11-2-73	B. J. Stockton	Rebar lengths increased from cut sheets 10-1 1/4 in. Test bars cut from fabricated bars w/o approval.	Field	PE	11-16-73			11-26-73
	2-21-74	J. C. Fitzgerald		PE	AA			11-23-73	
C-13 ✓	11-19-73	C. E. Kinney	Cadwelds in place have voids greater than allowed by Spec. C-231 Rev. 4.	Field	PE	11-20-73			11-29-73
	12-31-73	L. R. Albert		PE	AA			11-28-73	
C-14 ✓	11-16-73	S. Grant	#1 Rebar, Heat # C38071, ASTM Grade 60, Failed two of six tests.	Field	PE	11-20-73			11-26-73
	1-24-74	F. A. Kapla		PE	AA			11-23-73	
C-15 ✓	11-16-73	B. J. Stockton	Tensile testing requirements at 1970 shut-down. Cut 2 Splices from Unit #1.	Field	PE	11-20-73			12-3-73
	12-13-73	B. J. Stockton		PE	AA			11-28-73	
C-16 ✓	11-16-73	Steven Grant	Type "B" Cadweld sleeves on thickened liner plate 1969, show rust inside.	Field	PE	11-27-73			1-10-74
	1-14-74	L. R. Albert		PE	AA			1-9-74	
C-17	11-21-73	C. E. Kinney	Cadweld Splice No. 4-E-107 shows no evidence of permanent reference line per C-231Q Rev. 4	Field	PE	11-23-73			12-6-73
	12-13-73	C. E. Kinney		PE	AA			11-30-73	
C-18	11-23-73	S. Graham	Spacing of rebars & missing rebars Aux. Bldg. D Line Wall. Elev. 574'	Field	PE	11-26-73			12-6-73
	12-6-73	S. Graham		PE	AA			11-30-73	
C-19	11-29-73	C. E. Kinney	Listing of Cadweld splices with interrupted deform- ations, per Spec. 7220-C-231 Q, Rev. 4.	Field	PE	12-5-73			
	2-15-74	L. R. Albert		PE	AA			1-29-74	
C-20	11-29-73	C. E. Kinney	Listing of Cadweld Splices with interrupted deform- ations, per Spec. 7220-C-231 Q, Rev. 4.	Field	PE	12-14-73			1-10-74
	1-10-74	B. J. Stockton		PE	AA			12-31-73	
C-21	1-28-73	L. R. Albert	50EA 60' 18S Rebars heat # 79T457 rejected for failure of elongation test per ASTM-A-615-72.	Field	PE	12-5-73			12-17-73
	12-21-73	L. R. Albert		PE	AA			12-13-73	
C-22	11-29-73	L. R. Albert	Listing of Rebar Heat Numbers on which user tests have not been performed. Mat'l re'd prior to 11/70.	Field	PE	Not issued. See letter attached to NCR Engineering			
	12-4-73	C. E. Kinney		PE	AA				
C-23	11-30	L. R. Albert	Cadweld splice # 4E123 and to have generally porous metal per Spec. 7220-C 31 Q, Rev. 4.	Field	N.A.	N.A.	N.A.	N.A.	N.A.
	12-31-73	L. R. Albert		PE					

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		CLOSED BY		DISPOSIT.	ROUTE	XMTD	REPLY	RETD	
C-24	11-30-73	B. J. Stockton	Rebar size 18S, heat #C-38972 failed initial user	Field	PE	12-5-73			12-17-73
	12-19-73	B. J. Stockton	test. 2ea subsequent samples passed ASTM A-615	PE	AA		12-13-73		
C-25	12-3-73	B. J. Stockton	Rebar size 5, heat # 91117 failed user test, (258#	Field	N.A.	N.A.	N.A.	N.A.	
	12-12-73	B. J. Stockton	delivered. Not used for structural rebar	Reject					
26	12-5-73	C. E. Kinney	Q Areas of North Plant Dike, West Plant Dike, North	Field	PE	12-17-73			
			cast Dike, & 100' Berm. 7220-C-208, Rev.2 test frequen.	PE	AA				
C-27	12-5-73	C. E. Kinney	Liner Plate S1-5-U-1, Disposition of NCR #C-4 not	Field	PE	12-10-73			1-22-74
	2-21-74	M. P. Hendrick	followed per Spec 7220-C-50.	PE	AA		12-28-73		
C-28	12-5-73	G. Knoll	Admixture tanks on On-Site Batch Plant do not have	Field	PE	12-7-73			12-27-73
	2-26-74	L. R. Albert	a means of agitation per 7220-C-230, Rev.2, Para. 8.3	PE	AA		12-20-73		
C-29	12-5-73	S. Grant	Two Sleeves welded on thickened liner plate for	Field	N.A.	N.A.	N.A.	N.A.	
			inner primary shield wall prior to FCR C-24 approval	Reject					
C-29 Rev.1	2-12-73	S. Grant	Two "B" Cadweld sleeves welded on thickened liner	Field	PE	12-13-73			1-8-74
	1-8-74	S. Grant	plate using P1-A-LH. No weld specified in 7220-C-111	PE	AA		12-31-73		
C-30	12-12-73	S. Grant	Coping of Reactor Bldgs Base Support Columns exceeded	Field	PE	12-14-73			1-22-74
	1-22-74	S. S. Grant	minimum allowable.	PE	AA		1-7-74		
C-31	12-12-73	C. F. Clark	A fit-up lug was removed from Liner Plate S2-14-U1	Field	PE	12-19-73			1-03-74
	1-16-74	C. F. Clark	creating a gouge greater than 1/16" deep.	PE	AA		1-4-74		
C-32	12-14-73	C. F. Clark	E6010 Weld Rod Ser. #12560-N documentation reports	Field	PE	12-27-73			
			18% elongation, C-111, Rev.2 requires 22%	PE	AA				
C-33	12-12-73	C. F. Clark	Plate assemblies S2-4-U1 & S1-1-U2 lost pressure on	Field	N.A.	N.A.	N.A.	N.A.	
	2-19-74	C. F. Clark	test.	Rework					
C-34	1-4-74	B. J. Stockton	Certain 18S rebars from INRYCo are not cut to with-	Field	N.A.	N.A.	N.A.	N.A.	
	1-31-74	L. R. Albert	in 1/8" from square per Spec C-39, Rev. 5	Rework					

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		CLOSED BY			DISPOSIT.	ROUTE	XMTD	REPLY	RETD
35	12-3-73	C. F. Clark	Plate assembly S1-6-U-1 gas channel blocked 2'0" from	Field	PE	12-19-73			1-08-74
	1-16-74	C. F. Clark	left edge, viewed from bottom.	PE	AA		1-4-74		
36	12-31-73	B. J. Stockton	Some Cadweld sleeves have burrs, shavings, etc.	Field	PE	1-2-74			1-10-74
	2-1-74	L. R. Albert	Nonconforming to C-231 Rev. 4	PE	AA		1-8-74		
37	12-20-73	L. R. Albert	C-2 Section 11.4, Rigid Sheathing must have end caps	Field	PE	12-31-73			1-14-74
			or other devise for protection from damage, elements	PE	AA		1-7-74		
38	12-31-73	B. J. Stockton	Lugs for 3/8" plate fabricated on wrong side of	Field	PE	1-2-74			1-22-74
	1-22-74	S. S. Grant	Plate for Base Slab Units 1 & 2.	PE	AA		1-7-74		
39	12-18-73	G. Knoll	Curing tanks below specified temperature, C-208 Rev. 2	Field	PE	12-28-73			1-10-74
	1-10-74	G. W. Knoll		PE	AA		1-10-74		
40	1-3-74	M. P. Hendrick	Plate assembly S4-3-U-1, heat discolorations and	Field	N.A.	N.A.			N.A. N.A.
	2-20-74	M. P. Hendrick	bulges, Elev. 633'-2" and 648'-4".	Rework					
41	1-2-74	S. Grant	#11 12" trim bars(mk E12) Manufactured 13'-3" not	Field	PE	1-8-74			1-18-74
	3-6-74	L. Shively	13'-0" out-to-out as on INRYCo cut Shts.	PE	AA				
42	1-4-74	S. Grant	Trumplate assemblies R/B 1 & 2 grease vents, coatings,	Field	PE	1-4-74			1-30-74
			and rust.	PE	AA		1-23-74		
43	1-7-74	B. J. Stockton	Horizontal B6 x 8.5 s not fabricated in accordance	Field	PE	1-8-74			1-10-74
	1-24-74	F. A. Kapla	w/ INRYCo Dwgs. E-3, E-4, E-7, & E-8.	PE	AA		1-8-74		
44	1-15-74	M. P. Hendrick	3/8" E-6010 Weld Rod SN 54023-C & 54283-C received	Field	PE	1-17-74			
			at jobsite with twelve(12) broken containers.	PE	AA				
45		See log sheet 7 4.1 for E-3 1-74	See log sheet 7.						
38A	1-21-74	J. T. Stocks	PE's disposition of NCR C-2 authorized use of P1-A	Field					
	2-21-74	F. A. Kapla	on column lugs. Field used P1-A-Lb.	Rework					2-21-74



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		CLOSED BY		DISPOSIT	ROUTE	XMTD	REPLY	RET		
M-1	2-10-73	L. R. Albert	1ea 12 3/4" weld cap (P.O. N8342-33, Item 320, HT # SQNB) Shop Inspection (PT Examination) Not performed	Field	PE		12-12-73			1-8-
	2-5-74	H. D. Foster		PE	AA			1-3-74		
The balance of this sheet is not being used, see page 7.										

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				6. ROUTE	7. DATE XMTD	8. DATE RETD	9. DATE CLOSED	10. CLOSED BY	
Nonconformance Reports written under G-3 Rev. 04 were designated by letter (denoting Civil, Mechanical and Welding) and by number. Nonconformance Reports written under G-3 Rev. 05 will be designated by consecutive numbers only.									
45	1-18-74	G. W. Knoll	C-230. 1 1/2" & 3/4" concrete aggregate contaminated with rock salt on 1-15-74 & 1-16-74.	Field	Not Applicable	1-22-74	2-21-74	L. R. Albert	
46	1-21-74	L. R. Albert	C-39. Rebar Ht #79T457 failed @ 77,500 PSI during tensile test of qualifying splice X-7-V.	Not Applicable	1-24-74	2-5-74	2-7-74	L. R. Albert	
47	1-21-74	C. F. Clark	C-50A. Discrepancy between mill stamped and shop stamped slab numbers, plate S2-6-U-2 upper plate	MR	Not Applicable	1-30-74	2-26-74	L. R. Albert	
48	1-21-74	C. F. Clark	C-111. Leak chase channel, S4-2-II-1 & S3-1-II-1, repair procedure not followed.	Not Applicable	1-23-74				
49	1-21-74	C. F. Clark	C-111. Weld gap between Penetration R-12-L and assembly S1-3-U-2 not within specs.	Not Applicable	1-23-74	2-5-74	2-25-74	A. L. Boulden	
50	1-21-74	P. T. Carpenter	C-208. Frequency of testing aggregate for concrete not complied with per USTCo QA Manual.	Field	Not Applicable	1-24-74	2-21-74	J. Tice	
	1-22-74	P. T. Carpenter	C-230. Placements CC(582.25)a and A(578.67)a&b, CC(582.0)a, A(573)a, & CC(585)a, air test data.	Field	Not Applicable	VOIDED 2-7-74	2-21-74	Superseded by NCR 51 Rev1 J. Tice	
52	1-23-74	P. T. Carpenter	C-230. Placement A(574)a, 3cy concrete placed with air too high.	Not Applicable	2-8-74		2-27-74	L. R. Albert	
50 Rev. 1	1-24-74	P. T. Carpenter	C-208. Frequency of testing aggregate for concrete not complied with per USTCo QA Manual.	Field	2-22-74				
53	1-29-74	G. W. Knoll	C-230. 1 1/2" incoming aggregate out of gradation.	Field	Not Applicable	2-4-74	2-6-74	P. T. Carpenter	
54	1-30-74	L. R. Albert	C-111. No procedure in C-111 Rev. 2 for removal of rejected Cadwelds from Thickened Liner Plate.	Not Applicable	REPLACED by NCR 54 Rev 1				

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2. NCR NO.	3. ORIG. DATE	4. PREPARED BY	5. NONCONFORMANCE DESCRIPTION/REMARKS	6. STATUS				
				ROUTE	7. DATE XMTD	8. DATE RETD	9. DATE CLOSED	10. CLOSED BY
55	2-4-74	L. Shively	C-210. Placing of out-of-spec material in relation to moisture content of soils.	Not Applicable	3-7-74			
56	2-4-74	R. A. Moray	C-39. Rebar received with end cut greater than 1/8" from square. Parts 13, 14, 15, & 16.	Field	Not Applicable	2-8-74	2-8-74	L. R. Albert
54 Rev 1	2-4-74	L. R. Albert	C-111. No procedure in C-111 Rev. 2 for removal of rejected Cadwelds from Thickened Liner Plate.	Not Applicable	2-13-74	2-27-74		
57	2-7-74	R. J. Wolesslagle	C-39. Elongation test of Rebar Ht #75P682 failed initial and two subsequent tests.	Field	Not Applicable	2-11-74		
58	2-13-74	A. L. Boulden	C-111. RT-XG-1 Rev. 0 does not encompass ASME Code Proposed Section III referenced in C-111 Rev. 2	Field	Not Applicable	2-28-74	2-28-74	A. L. Boulden
59	2-13-74	L. R. Albert	C-111. No procedure for removal of "B" series sleeves from thickened liner plate in C-111 Rev. 2	Field	Not Applicable	2-22-74	3-6-74	L. R. Albert
60	2-14-74	S. S. Grant	C-50A. Sump liner plate fabricated incorrectly.	Field	2-18-74	2-18-74		
				2-15-74	Info.			
61	2-14-74	G. W. Knoll	C-230. Time of set test for cement not in conformance with ASTM C-150 & Spec. C-230.	Not Applicable	2-19-74	2-27-74	2-27-74	L. R. Albert
62	2-14-74	G. W. Knoll	C-230. Liquid admixtures for concrete placed to date in violation of Spec. C-230 (contain Chloride)	Not Applicable	2-19-74	2-27-74	2-27-74	L. R. Albert
63	2-14-74	A. L. Boulden	C-111. Plate S1-3-II-2 Elev. 609' bend greater than 1/8" measured w/ 24" straight edge.	Field	Not Applicable	3-5-74		
				2-14-74				
51 Rev. 1	2-8-74	P. T. Carpenter	C-230. Placements CC(582.25)a, A(578.67)a&b, CC(580)a, A(573)a. Air test data.	Not Applicable	2-18-74			
64	2-14-74	R. A. Moray	PT-SR-1,2. Liquid penetrant mats received w/o matl certification.	M.S.	Not Applicable	2-27-74	2-27-74	A. Moray

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GE 1 OF 2

No. C-12

SKETCH ATTACHED Yes

DATE 11 2 73

4. ITEM LOCATION AREA/BLDG. 5. DWG. PART No. REV. 6. ITEM NAME

Lab Containment #2 7220-C-310 2 Reinforcing Steel Q.No. 1.11
#18 layers #1 & 2 Bottom Mat

7. INSPECTION CRITERIA DOCUMENT NUMBER & TITLE E2 - 400-2-73
DWG SPEC OTHER (EXPLAIN) Inland Ryerson, vendor drawings E-3 - F-12

8. SOURCE: ENGRG. CONSTR. OTHER (EXPLAIN) ADDRESS 9. P.O. No.
Inland Ryerson Construction Products Company Box 5532, Chicago, Ill. 7220-C-39

10. 11. NONCONFORMANCE (DISCREPANCY) DESCRIPTION: ASME YES
NO

1 Rebar Lengths (Horizontal Dimensions) do not conform to out-to-out dimensions (± 1 inch) as cited by Paragraph 4.3, ACI Standard 315-65. Bar length dimensions are increased from Inland Ryerson cut sheets by 4-10 inches. This makes the complete cadwelded bar about 10-14 inches longer than required.

2 Rebar Lengths (Horizontal Dimension) do not conform to out-to-out dimensions (± 1 inch) as cited by Paragraph 4.3, ACI Standard 315-65. Test Bars (4'-0" \pm) were cut from fabricated bars without notification for approval of Rechtel.

3 (See Attached Sheet)

12. NCR PREPARED BY: Date CONCURRENCE Date
Responsible B.J. Rehtel 11-12-73 Responsible Richard Stone 11/12/73
Engr

13. FIELD DISPOSITION: REWORK REJECT ROUTE TO PROJECT/ENGRG
NOTIFY AUTHORIZED INSP. ROUTE TO MAT'L SUPV.

Certain bars have to be cut and re-cadwelded to obtain minimum clearance.

2 Extra 4'-0" \pm pieces are cadwelded onto the short bars.

3 Short Hooks will be cadwelded to make up required length.

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14. FIELD DISPOSITION BY: Date APPROVAL OF FIELD DISPOSITION Date
B.J. Rehtel 11/12/73 RECHTEL POWER CORP JOB 7220 11/12/73
PFE Richard Stone 11/12/73
CONCURRENCE
AUTH. INSP.

15. ENGRG DISPOSITION: REPAIR REJECT
USE AS IS SEE BELOW DCN REQD: YES NO DCN No. _____

1 We concur with Field's proposal to correct the #18 nonconforming rebar as per their comments 1 & 2.

2 We also concur with comment 3 of Field's proposal to make up the required length for short hook. However, the length of tail should be 4'-4" (3'-6" + 9" cadweld sleeve + 1" extra) instead of 3'-4 1/2".
of 11/21/73 of 11/21/73

APPROVAL OF ENGRG. B.J. Rehtel 11/23/73
DISPOSITION PFE Richard Stone 11/23/73
CONCURRENCE
AUTH. INSP.

17. REINSPECTION ACCEPT REJECT CONCURRENCE: Auth. Insp. Richard Stone 11/23/73
Responsible Engr. Richard Stone 11/23/73
Responsible Lead Engr. Richard Stone 11/23/73



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No. C-12

CONTINUATION SHEET

SKETCH ATTACHED Yes

DATE	MO	DAY	YR
	11	2	73

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- | | | | |
|-----|---|----|-------------------------------------|
| 10. | 11. NONCONFORMANCE (DISCREPANCY) CONT'D | or | <input checked="" type="checkbox"/> |
| | 13. FIELD DISPOSITION CONT'D | or | <input type="checkbox"/> |
| | 15. ENGRG. DISPOSITION CONT'D | | <input type="checkbox"/> |

3. Rebar Lengths (Hooks), do not conform to Standard Hook details as cited by Table 2.1, ACI Standard 315-65. Length of tail required by Bechtel Drawing, C-324, is 3'-6". ACI Standard Minimum is 3'-4½". Field dimensions vary from approximately 2'-6" to 4'-6".

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P 1 OF 3

SKETCH ATTACHED

No. 7220-19
 MO DAY
 DATE 11 29 73

4. ITEM LOCATION AREA/BLDG. 5. DWG/PART No. REV. 6. ITEM NAME
 Cont. #1 Base Mat 7220-C 310 1 Reinforcing Bars

7. INSPECTION CRITERIA DOCUMENT NUMBER & TITLE
 DWG SPEC OTHER (EXPLAIN) 7220-C-55, Rev. 1

8. SOURCE: ENGRG. CONSTR. OTHER (EXPLAIN) ADDRESS

10. No. 11. NONCONFORMANCE (DISCREPANCY) DESCRIPTION: ASME YES NO
 1 Spec. C-55 Rev. 1 Sect. 4.3.1 States, "The bar ends to be spliced shall be in good condition with full size undamaged deformations." A reinspection of all reinforcing steel Cadweld splices found interrupted deformations within the splice sleeve on the following splices in Containment #1. See sheet 2 of 3.

12. NCR PREPARED BY: Responsible Engr. L. R. Albut Date 11/28/73 CONCURRENCE: Responsible Lead Engr. [Signature] Date 11/29/73

13. FIELD DISPOSITION: REWORK REJECT ROUTE TO PROJECT ENGRG NOTIFY AUTHORIZED INSP ROUTE TO MAT'L SUPV

1. Spec. 7220-C-39, Rev. 2 makes no reference to deformation requirements on ends to be spliced. Attached as reference are: 1) August 27, 1970 letter to Inland Ryerson from J. H. Blasingame, 2) September 2, 1970 letter to Inland Ryerson from J. H. Blasingame and 3) Inspection Report on Cadwelding dated October 5, 1970 by J. Neely. Prior to reference 1) instructing Inland Ryerson to change approximately 75% of the reinforcing steel for the bottom mat in Containment #1 base slab had been fabricated and delivered with interrupted deformations allowed within 12" of the bar ends. Continued on sheet #3.

14. FIELD DISPOSITION BY: Richard [Signature] Date 12/13/73 APPROVAL OF FIELD DISPOSITION: PFE [Signature] Date 12/13/73 CONCURRENCE AUTH. INSP [Signature] Date

15. ENGRG DISPOSITION: REPAIR REJECT USE AS IS SEE BELOW DCN REQD: YES NO DCN No. _____

1. Engineering concurs that the references 1) thru 3) in item 13 were issued after a substantial quantity of rebar was fabricated. The intent of the several references was to assure that adequate rebar deformations were included within the cadweld sleeve to provide sufficient load transfer capacity.
2. Engineering has been advised that all splices listed on page 2 were made with North Star Steel Company deformations. By placing the mill marks or missing bar deformations in the most critical position to give minimum number of deformation area within the splice sleeve, we have determined that there is

Contd. on page 3

APPROVAL OF ENGRG. PE [Signature] Date 1/29/74 17. REINSPECTION ACCEPT REJECT CONCURRENCE: AUTH. INSP [Signature] Date 2/1/74

RECEIVED

NONCONFORMANCE REPORT

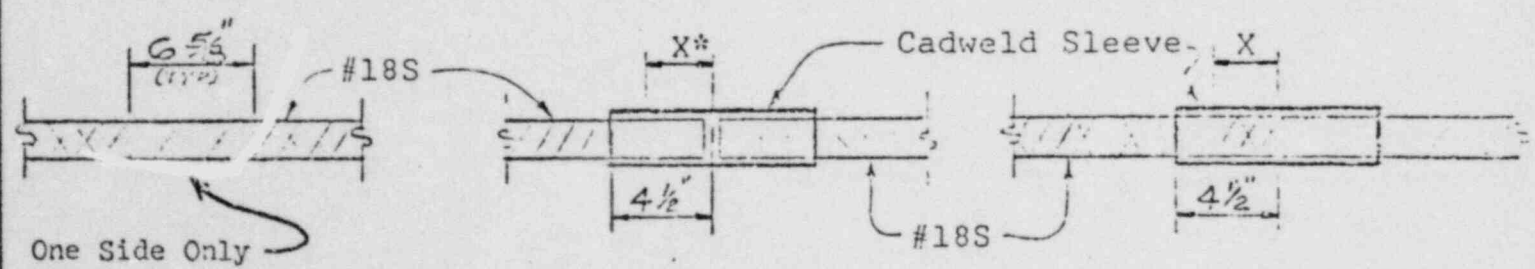
No. C-19
MO DAY
DATE 11 29

CONTINUATION SHEET
PROJECT NO. 7002

SKETCH ATTACHED Yes

- 10. CONT'D
- 11. NONCONFORMANCE (DISCREPANCY) CONT'D or
- 12. CONT'D
- 13. FIELD DISPOSITION CONT'D or
- 14. CONT'D
- 15. ENGRG. DISPOSITION CONT'D or

Splice No.	Splice End	Dimension "X"
32/3R16	East	4"
27/3R19	East	4 1/2"
29/3R20	East	3 1/4"
34/3R22B	East	4 1/2"
18/3R23	East	1 1/2"
19/3R25	East	3 1/4"
13/3R30	East	2 1/2"
46/3R49	East	4 1/2"
42/3R50	East	2"
65/3R55	East	1 3/4"
70/3R60	East	2 3/4"
54/3R68	East	3 1/4"
117/3R95	East	3"
79/3R131	East	1 1/2"
136/4R40	South	3 1/4"
129/4R47	South	3 3/4"
133/4R48	South	4 1/2" *
132/4R62	South	4 1/4"
⁶² 29/3R53	East	3" *
120/3R93	East	3 1/2" *
131/4R54	South	2 1/2" * ^{AS 3 1/2" *}
128/4R68 4R64 ^{AS}	South	2 1/2" * ^{AS 3" *}



One Side Only

Interrupted Deformations (Typical)	Interrupted Deformations Totally Enclosed Within Cadweld Sleeve *	Interrupted Deformations Partially Enclosed Within Cadweld Sleeve
------------------------------------	---	---

RECHITEE

NONCONFORMANCE REPORT

PAGE 3 OF 3

No. C-19

CONTINUATION SHEET

SKETCH ATTACHED Yes

DATE 11 29

PROJECT NO. 7220

10.	11. NONCONFORMANCE (DISCREPANCY) CONT'D or	<input checked="" type="checkbox"/>
No.	13. FIELD DISPOSITION CONT'D	or
CONT'D	15. ENGRG. DISPOSITION CONT'D	<input checked="" type="checkbox"/>

Project Engineering should investigate the possibility of accepting the bar placed in Containment #1 Base slab "as is". On the bar remaining to be placed, ends where interrupted deformations exist will be cut back to a point where the splice can be made on uninterrupted deformations and the subsequent missing bar length replaced using another Cadweld splice

Item 15 Contd.

still remaining an average deformation spacing of 1.00 inches which is less than Erico's required maximum deformation spacing of 1.18 inches (re Erico manual RB 20 M173)

- 3. Therefore, listed splices in page 2 of this NCR are acceptable, and should be "used as is."
- 4. Field's disposition of remaining bars is acceptable as per item 13.
- 5. Request Field to test three Cadwelds with interrupted deformations within the sleeve to verify adequacy of splice.

OK'd 1/29/74

bcc: ✓ H. D. Bruner/ L. Johnson wo/a
M. J. Mitchell/R. W. Stalwick wo/a
J. D. Franklin/J. C. Quigley
T. I. McHugh

RECEIVED
COPY

AUG 31 1970

BY
BECHTEL CORPORATION

August 27, 1970

Inland-Ryan Construction
Products Company
P. O. Box 5532
Chicago, Illinois 60680

Attention: Mr. J. V. Baker
Mr. D. J. Leitgeb

Subject: Consumers Power Company
Midland Plant Units 1 & 2
Job No. 7220
Reinforcing Steel
File: P.O. 7220-C-39 (PR)

Buzzy, W/S
SEP 22 1970
GARY BLIND
Jack G. [unclear]
Don D. [unclear]

Gentlemen:

Attached for your information is one copy of our Specification 7220-C-55, Revision 1 per August 26, 1970 telephone request by D. Leitgeb to B. N. Puscheck.

This will confirm our requirement that No. 18S rebars with interruptions of bar deformations in the region of bar ends which require ca welds are unacceptable and will be rejected. This problem occurs with certain frequency on bars where the trademark for North Star or Inland Steel is allowed to interrupt the normal bar deformation. For this reason, we would prefer to have those bars which do not interrupt the normal pattern, such as Ceko bars, furnished for all No. 18S which require ca-weld splices on this project.

Further, we find that the method of shear cutting No. 18S bars alters the deformations for a length of approximately 2 inches at bar ends. This alteration of deformations is also unacceptable at ends where ca-weld splices will be made. Please sawcut bars at the ends which will require ca-weld splices at the unit price of 45 ¢ per cut bar end as quoted verbally by D. Leitgeb to B. N. Puscheck, and we will prepare a change order accordingly.

Very truly yours,
Original signed by
H. H. BLASINGAME
J. H. Blasingame
Project Engineer
Bechtel Company

BHP/dh
(In dupl.)
cc: Consumers Power Co. (3)

Encl.

bcc: T. I. McHugh
M. D. Bruner/D. L. Johnson
F. Plutchak



COPY

3
GARY
N. Kelly

September 2, 1970

Inland-Ryerson Construction
Products Company
P. O. Box 5532
Chicago, Illinois 60680

NO!

Attention: Mr. Paul Backus

Subject: Consumers Power Company
Midland Plant Units 1 & 2
Job No. 7220
Reinforcing Steel
File: P.O. 7220-C-39 (PR)

Gentlemen:

Further to our letter of August 27, 1970, and per your telephone request this will clarify our requirement for bar end preparation at cadwelds. In addition to saw cutting the rebar end which requires cadwelding, the normal bar deformations shall be uninterrupted at bar ends requiring cadwelds as follows:

1. Continuous normal bar deformations for a minimum of 6 inches at the ends of No. 18S bars which will be spliced bar to bar with an Erico cadweld sleeve of type RBT-1801-H.
2. Continuous normal bar deformations for a minimum of 9" inches at the ends of No. 18S bars which will be spliced to structural plates or shapes with cadweld sleeves of type RBB-18101-A.

Very truly yours,
ORIGINAL SIGNED

BY
C. R. VAN NEST
J. H. Blasingame
Project Engineer
Bechtel Company

RECEIVED
SEP 8 1970

BNP/dh
(In dupl.)
cc: Consumers Power Co. (3)

BY _____
BECHTEL CORPORATION

Oct. 5, 1970

Today we started our first production CADWELDING. Listed below are the problems we faced and the methods we chose for solution:

1. Five out of the 20 production splices had one out of the two rebar ends to be spliced deficient in deformations, due to the bar identification stamp falling at the end.

Since these bars were received on the job prior to the attached letter dated Sept. 2, 1970 to Inland-Ryerson from Mr. J. H. Blasingame, I felt we had no alternative but to CADWELD these bars the same as the others. One of these five splices were pulled to be tested. Of the last set of test specimens tested by Flood & Co. last month, one was an identical case with one rebar end deficient in deformations. The tensile strength of this splice was 97.5 ksi which was well above the specified minimum of 125 percent of the yield strength or 75 ksi. We did not have the situation where both ends of the rebar have this deformation deficiency, but if this comes up I plan to cut out 2 feet or 3 feet back from the end of each bar and splice with two CADWELDS similar pulling a section for testing.

2. The specifications call for a selective number of production and sister specimens to be tested per certain lot of splices for each CADWELDING crew. We had 3 crews of 2 men each CADWELDING in the CADWELD AREA, but all under the direct supervision of one foreman. Since all of the CADWELDING was confined to a small area and the foreman could readily oversee all of the work simultaneously, I considered this as one crew and pulled my test specimens accordingly.

Don A. Neely
Oct. 5, 1970

CADWELD PRODUCT, N AND TEST REPORT

QC DEPT/ANL

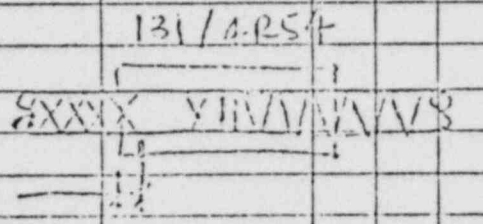
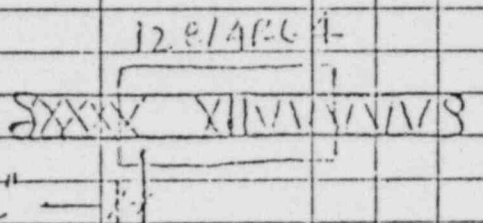
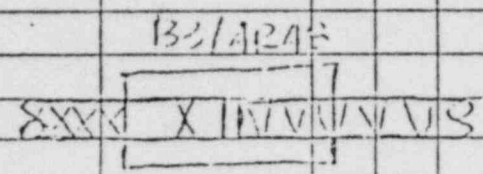
CONTROL FILE

1. PROJECT NO. 7220 MIDLAND

2. DATE 1/30/74

PAGE 1 OF 1

5. SPLICE NO.	6. SLEEVE LOT NO.	7. POWDER LOT NO.	8. POSITION			9. PRE-HEAT	10. VISUAL INSPECTION			13. DESTRUCTIVE TESTING			16. PLOTTED ON DWG. NO.	17. REMARKS
			V	H	I		10. Ends	11. Tap Hole	12. Centrg.	13. TENSILE RESULT	14. TYPE FAILURE	15. AVG. TENSILE		
11/AR48				X			S	S			98.5	Bar Fracture	R4	
12/AR44				X			S	S			96.0	Bar Fracture	R4	
13/AR54				X			S	S			99.7	Bar Fracture	R4	
<p>NOTE: THESE CADWELDS HAVE INTERRUPTED REFORMATIONS WITHIN THE CADWELD SLEEVE. THEY ARE BEING TESTED AT ENGINEERING'S REQUEST TO GATHER INFORMATION FOR RESOLUTION OF NRC-19. THE SPLICES HAVE BEEN CUT OUT OF REACTOR BLDG. 1 BASE MAT.</p> <p style="text-align: right;"><i>Agout</i> 1/30/74</p>														
		131/AR48		X										
		128/AR64		X										
		131/AR54		X										



24. TOTAL TODAY
25. TOTAL FORWHD
26. TOTAL TO DATE.

19. BAR SIZE 5/8 19. GRADE 60 20. SERIES "T" "B"

27. FOREMAN

1-30-74
DATE

21. OPERATOR'S NAME _____ 22. HANDL. NO. _____ 23. CH. V. NO. _____ 28. FIELD ENGINEER/TECH. _____ DATE _____

NONCONFORMANCE REPORT

PROJECT NO. 7220

SKETCH ATTACHED Yes No

E 1 OF 2

No. 7220-27

4. ITEM LOCATION: Containment #2 Liner AREA/BLDG. S-1-5-U-1 5. DWG/PART No. S-1-5-U-1 REV. 7 6. ITEM NAME: Liner Plate Assembly

7. INSPECTION CRITERIA: DWG SPEC OTHER (EXPLAIN) 7220-C-50, Rev. 7 DOCUMENT NUMBER & TITLE: Reactor Building Liner Plate & Accessories

8. SOURCE: ENGRG. CONSTR. OTHER (EXPLAIN) Southern Boiler & Tank Works, Memphis, Tenn. ADDRESS: Memphis, Tenn.

10. No. 1 11. NONCONFORMANCE (DISCREPANCY) DESCRIPTION: (LIST SERIAL NUMBERS WHERE APPLICABLE) ASME YES NO

1 S-1-5-U-1 Liner Plate (Ref. NCR No. C-4)
Disposition made on NCR #C-4 for repair of liner plate was not followed when repair was performed. The following deviations were noted:
1. A 12" x 14" section of liner plate was removed by flame cutting.
2. Specification 7220-C-50 was not followed.
3. Appendix B "Repair Procedures for Reactor Building Liner Plate" of Specification 7220-C-111 had not been issued for construction.

12. NCR PREPARED BY: Responsible Eng. E. J. ... Date 12/6/73 CONCURRENCE Responsible Lead Engr. Richard ... Date 12/6/73

13. FIELD DISPOSITION: REWORK REJECT ROUTE TO PROJECT E. GRG NOTIFY AUTHORIZED INSP. ROUTE TO MAT'L SUPV.

1 NCR-C4 was written to cover a defect in the shop weld attaching the leak chase channel to the subject liner plate assembly. The defective weld was removed by grinding. Visual inspection of the liner plate under the chase channel revealed lamination on the liner plate. The chase channel in that area was removed and the defective area of the plate was heated to determine the extent of lamination. The defect proved to be too extensive to repair by adding weld metal to the area so a 12" x 14" cut out was made to remove the affected area.
A 12" x 14" patch plate was removed from a future penetration area of

14. FIELD DISPOSITION BY: C. F. ... Date 12-6-73 APPROVAL OF FIELD DISPOSITION: PFE ... Date 12-6-73 CONCURRENCE AUTH. INSP. ... Date ...

15. ENGRG DISPOSITION: REPAIR REJECT USE AS IS SEE BELOW DCN REQD: YES NO DCN No. ...

1 Engineering concurs with Field's disposition #1 to repair the defective area of liner plate with plate cut out from a future penetration area and weld the plate with parent plate with Bechtel Welding procedure pl-Ac-LH. We concur that the repair should, and do in fact, meet the intent of spec. 7220-C-111, Rev. 2, App. B.
RPN 12/28/73

APPROVAL OF ENGRG. PE ... Date 12-28-73 DISPOSITION PFE ... Date ... CONCURRENCE AUTH. INSP. ... Date ... 17. REINSPECTION: ACCEPT REJECT CONCURRENCE: ... Date ...

NONCONFORMANCE REPORT

PAGE 2 OF 2

No. C-27

CONTINUATION SHEET

SKETCH
ATTACHED Yes 3. DATE | MO | DAY | YR
| 12 | 5 | 73

PROJECT NO. _____

10.	11. NONCONFORMANCE (DISCREPANCY) CONT'D	or	<input type="checkbox"/>
No.	13. FIELD DISPOSITION CONT'D	or	<input checked="" type="checkbox"/>
CONT'D	15. ENGRG. DISPOSITION CONT'D	or	<input checked="" type="checkbox"/>

Plate assembly S2-4-U2, Heat 517Z1292, Slab Z97021.

All edges were prepared for welding in accordance with Bechtel Welding procedure Pl-A-C-LH. Back up strips were attached to the back side of the liner plate and patch was welded into place by Boilermaker Welder No. B-8 in accordance with Specifications 7220-C-111, Rev. 1. The joint was examined by radiograph and leak chase channel installed over the seam. Prior to welding & subsequent to weld edge preparation a liquid penetrant examination was performed of the edge. This examination showed no further evidence of plate lamination.

2. Specification 7220-C-50 was incorrectly referred to on NCR-C4. The applicable specification for field work on liner plate is 7220-C-111.
3. The field requests engineering to evaluate field disposition #1 for compliance to the intent of Specification 7220-C-111, Rev. 2, Appendix B.

NON CONFORMANCE REPORT

PROJECT NO. 7220

PAGE 1 OF 1

No. 28

SKETCH ATTACHED

NO DAY

DATE 12/5/73

ITEM LOCATION	AREA/BLDG.	5. DWG/PART No.	REV.	6. ITEM NAME	Q.No.
On-Site Batch Plant		Spec. 7220-C-230	2	Concrete	1-12

SECTION CRITERIA
 DWG SPEC OTHER (EXPLAIN) Technical Spec. For Operating On-Site Batch Plant

SOURCE: ENGRG. CONSTR. OTHER (EXPLAIN)
 ADDRESS: Champion, Inc. Iron Mountain, Mi. 7220-C-230

11. NONCONFORMANCE (DISCREPANCY) DESCRIPTION:
 (LIST SERIAL NUMBERS WHERE APPLICABLE)

1 Paragraph 8.3 of Spec. 7220-C-230, Rev. 2 states admixture tanks shall include an approved means of agitation. Admixture tanks at the On-Site Batch Plant do not have a means of agitation.

12. NCR PREPARED BY: Responsible Engr. Gary W. Knell Date 12-5-73
 CONCURRENCE: Responsible Lead Engr. Richard Grote Date 12/5/73

13. FIELD DISPOSITION: REWORK REJECT ROUTE TO PROJECT/ENGRG
 NOTIFY AUTHORIZED INSP. ROUTE TO MAT'L SUPPLY
 The field has discussed with project engineering the fact that the admix manufacturer does not require agitation. Field recommends deletion of the agitation requirement.

RECEIVED
 DEC 27 1973
 BECHTEL POWER CORP.
 JOB 7220

14. FIELD DISPOSITION BY: PER Gary W. Knell Date 12-5-73
 APPROVAL OF FIELD DISPOSITION: PFE John C. Ungers Date 12/6/73
 CONCURRENCE AUTH. INSP.

15. ENGRG DISPOSITION: REPAIR REJECT
 USE AS IS SEE BELOW
 DCN REQ: YES NO DCN No.

Engineering will revise the Specification 7220-C-230 P 8.3 to require agitation in accordance with manufacturers recommendation. Hence, based on letter from Master Builders to Richard Grote dated 12/14/73, no agitation will be necessary unless material has been frozen.

Handwritten notes:
 12/20/73
 12/20/73

16. APPROVAL OF ENGRG. PE Gary W. Knell Date 12/5/73
 PFE John C. Ungers Date 12/6/73
 DISPOSITION CONCURRENCE AUTH. INSP.

17. REINSPECTION
 ACCEPT Responsible Engr. Richard Grote Date 12/6/73
 REJECT Responsible Lead Engr. Richard Grote Date 12/6/73
 CONCURRENCE: Auth. Insp.



MASTER BUILDERS

MAYFIELD, CLEVELAND, OHIO 44118 • PHONE 216 371-5000 • CABLE MASTMETHOD CLEVELAND

December 14, 1973

Mr. Richard Grote
Bechtel Corporation
Midland, Michigan
c/o Champion, Inc.

Dear Mr. Grote:

Attached are notarized certificates on MB-HC and MB-VR Standard as requested by Mr. Jack Neuman, Manager of our Detroit branch office, showing compliance with the requirements of paragraph 7.4.2 and 7.4.3 of the project specification 7220-C-230, REV 1.

The following remarks are relative to the minimum cement and water reduction requirements as outlined on page 5 of the project specifications, paragraph 2, sub-paragraph 7.4.3, water-reducing agent.

Based on test data obtained from evaluations conducted in our own laboratory, which is regularly inspected by the Cement and Concrete Reference Laboratory; we feel reasonably confident that at a dosage rate of $1\frac{1}{2}$ fl ozs/100 lbs of cement, MB-HC should achieve an average water reduction of approximately 5% with an accompanying cement reduction of approximately 11% based on psi increase over a plain reference mix at equal cement contents using identical concrete making materials. This cement reduction is computed using the accepted rule of thumb where 10 psi equals 1 pound of cement for an established mix design.

Sincerely yours,

MASTER BUILDERS

James H. Sprouse
James H. Sprouse
Assistant Director, Engineering

JHS/lh
Attachment

cc: Champion, Inc.
P. O. Box 1306
Midland, Michigan 48640

Mr. J. E. Neuman
Mr. I. V. Troutman



MASTER BUILDERS

December 14, 1973

MAYFIELD, CLEVELAND, OHIO 44118 • PHONE 216 371 5000 • CABLE MASTMETHOD CLEVELAND

Re: Consumer Power Company
Nuclear Plant
Midland, Michigan

To Whom It May Concern

State of Ohio)
County of Cuyahoga) ^{ss}

Before me, a Notary Public, in and for the aforesaid State and County, personally appeared James H. Sprouse, who being duly sworn, deposes and says:


That he is Assistant Director of Engineering for Master Builders, Cleveland, Ohio; and

That MB-HC, a product of Master Builders, complies with ASTM C-494, Type D; and

That MB-HC contributes no chloride to concrete through its use, i.e. less than 5 ppm by weight of the cement; and

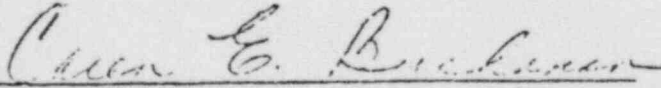
That chloride is not an added ingredient in the manufacture of this MB-HC; and

That MB-HC does not require agitation except that necessary for reconstitution when the material has been frozen prior to use.


Assistant Director, Engineering

Subscribed and sworn to before me this 14th day of December, 1973.

CAREN E. BUCHANAN, Notary Public
CUYAHOGA COUNTY, OHIO
My Commission Expires October 21, 1974


Notary Public



MASTER BUILDERS

MAYFIELD, CLEVELAND, OHIO 44118 • PHONE 216 371-0000 • CABLE MASTML 4400 CLEVELAND

December 14, 1973

Re: Consumer Power Company
Nuclear Plant
Midland, Michigan

To Whom It May Concern

State of Ohio)
County of Cuyahoga) ^{ss}

Before me, a Notary Public, in and for the aforesaid State and County, personally appeared James H. Sprouse, who being duly sworn, deposes and says:

That he is Assistant Director of Engineering for Master Builders, Cleveland, Ohio; and

That MB-VR Standard (Master Builder' Neutralized Vinsol Resin Solution) is an aqueous solution of Vinsol resin that has been neutralized by sodium hydroxide. The ratio of sodium hydroxide to Vinsol resin is one part to six parts. The percentage of solids based upon the residue dried at 105C is thirteen. No other additive or chemical agent is present in MB-VR Standard; and

That MB-VR Standard conforms with all the requirements of ASTM C 260, Specifications for Air-Entraining Admixtures for Concrete; and

That MB-VR Standard is capable of entraining air in the range of 3 to 6 percent; and

That MB-VR Standard does not require agitation except that necessary for reconstitution when the material has been frozen prior to use; and

That MB-VR Standard is free of chloride inasmuch as it contributes chloride in an amount equal to about 6 ppm by weight of cement in the concrete.

James H. Sprouse
Assistant Director, Engineering

Subscribed and sworn to before me this 14th day of December, 1973.

CAREN E. BUCHANAN, Notary Public
CUYAHOGA COUNTY, OHIO
My Commission Expires October 21, 1974

Caren E. Buchanan
Notary Public



NONCONFORMANCE REPORT

PROJECT NO. 7220

SKETCH ATTACHED Yes

No. C-33

DATE 12 / 12 / 73

4. ITEM LOCATION AREA/BLDG. Containment Unit #2 5. ~~DWG~~ PART No. S2-4-U1 & S1-1-U2 REV. 1.21 6. ITEM NAME Liner Plate

7. INSPECTION CRITERIA DWG SPEC OTHER (EXPLAIN) 7220-C-111 Erection of Liner Plate DOCUMENT NUMBER & TITLE

8. SOURCE: ENGRG. CONSTR. OTHER (EXPLAIN) Southern Boiler & Tank Works ADDRESS Memphis, Tenn. P.O. No. 7220-C-50

10. No. 11. NONCONFORMANCE (DISCREPANCY) DESCRIPTION: ASME YES NO

1 Plate Assembly No. S2-4-U1:
While building pressure in the leak chase system for the pressure decay test, air escaped from the back side of the plate, indicating a faulty weld. The fault is at the shop weld of the upper and lower plate. The back side of the welded area is severely strained.

2 Plate Assembly No. S1-1-U2:
Additional inspection initiated due to item 1 revealed a rupture in the same weld on plate assembly S1-1-U2. The back side of the welded area is severely strained.

12. NCR PREPARED BY: Responsible Eng. A.F. Clark Date 12-14-73 CONCURRENCE: Responsible Lead Engr. Richard Dote Date 12/14/73

13. FIELD DISPOSITION: REWORK REJECT ROUTE TO PROJECT ENGRG NOTIFY AUTHORIZED INSP. ROUTE TO MAT'L SUPV.

1 & 2 Remove and replace defective areas in accordance with specification 7220-C-111, Rev. 2, Appendix "B".

14. FIELD DISPOSITION BY: Responsible Eng. A.F. Clark Date 12-14-73 APPROVAL OF FIELD DISPOSITION: PFE Jerry C. Valenzuela Date 12/14/73 CONCURRENCE AUTH. INSP.

15. ENGRG DISPOSITION: REPAIR REJECT USE AS IS SEE BELOW DCN REQD: YES NO DCN No. _____

APPROVAL OF ENGRG. DISPOSITION: PE _____ Date _____ PFE _____ Date _____ CONCURRENCE AUTH. INSP. _____ 17. REINSPECTION: ACCEPT REJECT CONCURRENCE: Auth. Insp. _____



NONCONFORMANCE REPORT

PROJECT NO. 7220AGE 1 OF 2

No. C-36

SKETCH ATTACHED Yes DATE 12 31 72

4. ITEM LOCATION AREA/BLDG. Base slab Cont #1 & #2 5. DWG/PART No. 7220-C-309 REV. 2 6. ITEM NAME Cadweld Sleeves Q No. 1.111
7220-C-310

7. INSPECTION CRITERIA DWG SPEC OTHER (EXPLAIN) 7220-C-231, Rev. 4 DOCUMENT NUMBER & TITLE Forming, Placing, Finishing and Curing Concrete of Concrete

8. SOURCE: ENGRG. CONSTR. OTHER (EXPLAIN) Erico Products, Inc., Cleveland, Ohio ADDRESS 7220-C-255-AC 9. P.O. No.

10. No. 11. NONCONFORMANCE (DISCREPANCY) DESCRIPTION: ASME YES NO
 1. Cadweld sleeves do not conform to Paragraph 10.9.3 of Specification 7220-C-231, Rev. 4. Specifically, some Cadweld sleeves are improperly machined, i.e., burrs, shavings, etc. **RECEIVED**, and some have rust along the inside groove

RECEIVED**RECEIVED**

JAN 10 1974

JAN 14 1974

BECHTEL POWER CORP.
JOB 7220PER gnd

QUALITY CONTROL

12. NCR PREPARED BY: Responsible Engr. [Signature] Date 1-7-74 CONCURRENCE: Responsible Lead Engr. [Signature] Date 1/2/74 BECHTEL JOB 7220

13. FIELD DISPOSITION: REWORK REJECT ROUTE TO PROJECT ENGRG NOTIFY AUTHORIZED INSP. ROUTE TO MAT'L SUPV.

1. Prior to Cadwelding, burrs, shavings, rust, etc., will be removed by means of a wirebrush, small metal picks or other suitable instruments. If necessary, the inside of the sleeve will be sandblasted. Cadweld sleeves which will not meet the requirements of Paragraph 10.9.3 of Spec. 7220-C-231, Rev. 4 after rework, will be rejected by the field engineer inspecting the Cadweld sleeves.

See Continuation Sheet.

14. FIELD DISPOSITION BY: [Signature] Date 1-7-74 APPROVAL OF FIELD DISPOSITION: PFE [Signature] Date 1/2/74
 CONCURRENCE AUTH. INSP.

15. ENGRG DISPOSITION: REPAIR REJECT USE AS IS SEE BELOW DCN REQ'D: YES NO DCN No. _____

1. Engineering concurs with the field disposition with the following modifications:
 a) Small amounts of burrs, shavings etc. are not caused by improper machining, but incomplete cleaning.
 b) Removal of small amounts of shavings, burrs, and rust is not required so long as the flow of molten filler metal is not inhibited.
 c) Do carefully inspect for, and remove any moisture inside of the sleeve.
 See Continuation Sheet.

APPROVAL OF ENGRG. [Signature] Date 1/3/74 17. REINSPECTION ACCEPT Date 2/1/74
 DISPOSITION PFE [Signature] Date 1/10/74 REJECT Date 2/1/74
 CONCURRENCE AUTH. INSP. [Signature] Date _____ RESPONSIBLE LEAD ENGR. [Signature] Date _____

RECEIVED

NONCONFORMANCE REPORT

No. C-36

CONTINUATION SHEET

SKETCH ATTACHED Yes

PROJECT NO. 7220

3.	MO	DAY	YR
DATE	3	21	74

10. CONT'D
- 11. NONCONFORMANCE (DISCREPANCY) CONT'D or
 - 13. FIELD DISPOSITION CONT'D or
 - 15. ENGRG. DISPOSITION CONT'D

Project Field Engineering has elected to implement the recommended field disposition in lieu of that suggested by Project Engineering. The reason for implementing the recommended field disposition is that it satisfies everything that is suggested by Project Engineering plus exceeds it by more thorough cleaning of the sleeves.

PFE: Jerry C. Valenzano 3-21-74
 CONCURRENCE: J. Connolly 3-21-74



NONCONFORMANCE REPORT

PROJECT NO. 7220

1. P : 1 OF 1

2. No. C-38A

SKETCH ATTACHED Yes

3. DATE 1 / 9 / 74 MO DAY '74

4. ITEM LOCATION AREA/BLDG. 5. DWG/PART No. REV. 6. ITEM NAME
Base Slab Cont. #2 7220-C-393 5 Lugs for Cross Bracing on WS

7. INSPECTION CRITERIA DOCUMENT NUMBER & TITLE
DWG SPEC OTHER (EXPLAIN) Welding Procedure Pl-A (Structural)

8. SOURCE: ENGRG. CONSTR. OTHER (EXPLAIN) ADDRESS P.O. No. NA

10. No. 11. NONCONFORMANCE (DISCREPANCY) DESCRIPTION: ASME YES NO

1 Engineering's disposition to NCR-C-38 received on 1/9/74 authorized the field to weld lugs on the support columns shown on Dwg. 7220-C-393 according to welding procedure Pl-A. On 1/9/74 the field welded 12 lugs on the columns according to welding procedure Pl-A-Lh.

The difference in the procedures is that welding procedure Pl-A requires welders be qualified to AWS requirements, and welding procedure Pl-A-Lh requires welders be qualified to Section IX of the ASME Code.

12. NCR PREPARED BY: Responsible Engr. A.T. Hanks Date 1-14-74 CONFORMANCE Responsible Lead Engr. P. J. Hanks Date 1-17-74

13. FIELD DISPOSITION: REWORK REJECT ROUTE TO PROJECT ENGRG NOTIFY AUTHORIZED INSP ROUTE TO MAT'L SUPPLY

1 TWX #2670 from the Project Engineer on 1/10/74 amended NCR-C-38 to allow the lugs to be welded according to either welding procedure Pl-A or Pl-A-Lh, at the field's option.

The 12 lugs welded on the columns can be accepted for use as is and future welding of the lugs will be in accordance with NCR-C-38 and TWX #2670, which allows the use of welding procedure Pl-A or Pl-A-Lh.

14. FIELD DISPOSITION BY: Brent Date 1/14/74 APPROVAL OF FIELD DISPOSITION: PFE John C. Hanks Date 1/14/74 CONFORMANCE AUTH. INSP [Signature] Date 1/14/74

15. ENGRG DISPOSITION: REPAIR USE AS IS REJECT SEE BELOW DCN REQD: YES NO DCN No. _____

16. APPROVAL OF ENGRG. PE _____ Date _____ PFE _____ Date _____ DISPOSITION CONFORMANCE AUTH. INSP _____ Date _____
17. REINSPECTION ACCEPT Responsible Engr. _____ Date _____ REJECT Responsible Lead Engr. _____ Date _____ CONFORMANCE AUTH. INSP _____ Date _____

NCR35A

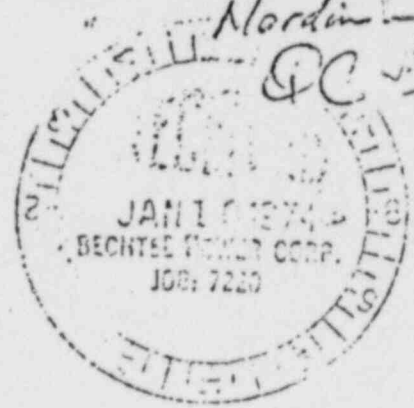
N
Grote
Grant
Mordin
QC

BECHTEL MIDL

BECHTEL ARB
810-223-6032 CLG 810-266-9497

TX #2670 1/10/74 07 54
ATTN.: E. E. FELTON

*****PLEASE RUSH DELIVERY*****



BEBC - 148

SUBJECT: CONSUMERS POWER COMPANY
MIDLAND PLANT - UNITS 1 & 2
JOB NO. 7220
MISCELLANEOUS METAL
FILE: 0274, C-33

PARAGRAPH 7.4 OF SPECIFICATION 7220-C-33, REV. 2, WILL BE RE-
vised TO ALSO INCLUDE WELDING OF MISCELLANEOUS METAL USING
PROCEDURES AND WELDERS QUALIFIED IN ACCORDANCE WITH ASME SECTION
IX.

OUR RESPONSE TO NCR C-43, NCR C-38, AND FOR C-40 IS AMENDED
TO ALLOW STRUCTURAL WELDING USING EITHER WELDING PROCEDURES
P1-A OR P1-A-LH AT THE FIELD'S OPTION.

P. A. MARTINEZ, PROJECT ENGINEER
ANN ARBOR/7PE2116/7220-001/KTM

*****PLEASE RUSH DELIVERY*****

RECEIVED

JAN 10 1974

QUALITY CONTROL
BECHTEL JOB 7220

BECHTEL MIDL

e

REVISION

NONCONFORMANCE REPORT

PROJECT NO. 7220

1. GE 1 OF 1

2. No. C-40

SKETCH ATTACHED Yes

3. MO DAY YR

DATE 1 3 74

4. LOCATION	AREA/BLDG.	5. XXXX PART No.	REV.	6. ITEM NAME	Q No. <u>1.21</u>
Containment Unit #2		S4-3-U-1 & S3-2-U-1		Liner Plate	

7. INSPECTION CRITERIA DOCUMENT NUMBER & TITLE
 DWG SPEC OTHER (EXPLAIN) 7220-C-111 Rev. 2, Appendix B, Rev. 2.

8. SOURCE: ENGRG. CCNSTR. OTHER (EXPLAIN)
Southern Boiler & Tank Works, Memphis, Tennessee ADDRESS
 9. P.O. No. 7220-C-50

10. No.	11. NONCONFORMANCE (DISCREPANCY) DESCRIPTION: (LIST SERIAL NUMBERS WHERE APPLICABLE)	ASME YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
	Plate assembly S4-3-U-1, Serial Number A-12618. After installation on the East Fabrication Jig, a visual inspection underneath and top side revealed the following conditions:		
1	At Elevation 633'-2" on the subject plate, heat discoloration and bulges were noted adjacent to the vendor's butt weld and the field seam weld.		
2	At Elevation 648'-4" on the same plate, adjacent to the field seam weld, heat discoloration and bulges were also noted.		

12. NCR PREPARED BY Responsible Engr. <u>[Signature]</u>	Date <u>1-3-74</u>	CONCURRENCE Responsible Lead Engr. <u>[Signature]</u>	Date <u>1-3-74</u>
---	--------------------	--	--------------------

13. FIELD DISPOSITION: REWORK REJECT ROUTE TO PROJECT ENGRG
 NOTIFY AUTHORIZED INSP. ROUTE TO MAT'L SUPV

1. Remove defective area by torch cutting - replace with 'Q' listed plate in accordance with specifications 7220-C-111 & App. "B" to C-111.

14. FIELD DISPOSITION BY: <u>[Signature]</u>	Date <u>1-3-74</u>	APPROVAL OF FIELD DISPOSITION PFE <u>[Signature]</u> CONCURRENCE AUTH. INSP.	Date <u>1-3-74</u>
---	--------------------	--	--------------------

15. ENGRG DISPOSITION: REPAIR REJECT
 USE AS IS SEE BELOW DCN RECD: YES NO DCN No. _____

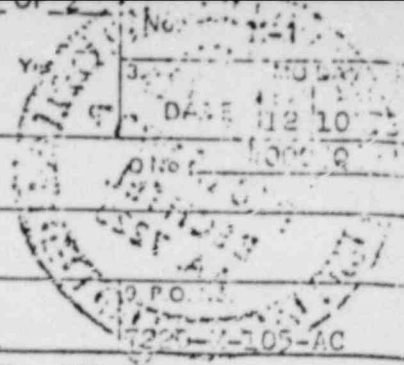
Copy for info only to Project Engrg
 TV

16. APPROVAL OF ENGRG. PE _____ Date _____	17. REINSPECTION ACCEPT <input checked="" type="checkbox"/> <u>[Signature]</u> 2-20-74 Responsible Engr. Date REJECT <input type="checkbox"/> _____ Responsible Lead Engr. Date CONCURRENCE: Auth. Insp. _____
DISPOSITION CONCURRENCE AUTH. INSP.	

NONCONFORMANCE REPORT

PROJECT NO. 7220

SKETCH ATTACHED



4. ITEM LOCATION: Containment #2 AREA/BLDG. M - 178 5. DWG#^{or} PART No. 3 REV. 3 6. ITEM NAME Weld Cap

INSPECTION CRITERIA: G SPEC OTHER (EXPLAIN) 7220-M-102 Rev. 3 DOCUMENT NUMBER & TITLE

8. SOURCE: ENGRG. CONSTR. OTHER (EXPLAIN) M. W. Kellogg Company ADDRESS Williamsport Penn. 17701

10. No.	11. NONCONFORMANCE (DISCREPANCY) DESCRIPTION: (LIST SERIAL NUMBERS WHERE APPLICABLE)	ASME YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
1	12 3/4" O.D. X 3/8" wall weld cap (P.O. N8342-33, Item 320, Ht. # SOME, F-7, Item (SA 403 - WP 304) was received 11/26/73 under MRR No. Q.C.-24. This item was placed on Q.C. hold in accordance with TWX #1095 dated 9/7/73 from P. Martinez to E. E. Felton and remained on hold in accordance with TWX #2187 dated 11/28/73 from P. Martinez to E. E. Felton. Shop Inspection (Pt. Examination) was not performed prior to shipping as required by requisition 7220-M-105, Rev. 3.		

12. NCR PREPARED BY: Responsible Engr. [Signature] Date 12/1/73 CONCURRENCE: Responsible Lead Engr. [Signature] Date

13. FIELD DISPOSITION: REWORK REJECT ROUTE TO PROJECT ENGRG NOTIFY AUTHORIZED INSP ROUTE TO MAT'L SUPV.

14. FIELD DISPOSITION BY: [Signature] Date 12/1/73 APPROVAL OF FIELD DISPOSITION: PFE [Signature] Date 12/1/73 CONCURRENCE AUTH. INSP [Signature] Date 4/2/74

15. ENGRG DISPOSITION: REPAIR USE AS IS REJECT SEE BELOW DCN REQD: YES NO DCN No.

The PT examination was performed and documented by M. W. Kellogg Co. as required by the Material Requisition. The weld cap was shipped prior to Bechtel shop inspection; however, the PT examination report has since been approved by the Bechtel Inspector. Verification that the cap meets the requirements of the Material Requisition should be made by comparing the cap and shipping tag with the quality verification documents which engineering has reviewed and transmitted to the field by Bechtel Transmittal Form #00618, dated 12/28/73. Once this inspection has been completed and documented by PFE signoff below, the "Hold" on the cap is released (NOTE: Hold Tag Removed 4/2/74).

16. APPROVAL OF ENGRG. DISPOSITION: [Signature] Date 1/3/74 PFE [Signature] Date 2/5/74 CONCURRENCE AUTH. INSP [Signature] Date 2/5/74 17. REINSPECTION: ACCEPT REJECT CONCURRENCE: [Signature] Date 2-5-74 AUTH. INSP [Signature] Date

RECEIVED

NONCONFORMANCE REPORT

PAGE 2 OF 2

No. M-1

CONTINUATION SHEET

PROJECT NO. 7220

SKETCH ATTACHED Yes

3.	MO	DA	YR
	12	10	73

- | | | | |
|--------------|---|----|-------------------------------------|
| 10
CONT'D | 11. NONCONFORMANCE (DISCREPANCY) CONT'D | or | <input type="checkbox"/> |
| | 13. FIELD DISPOSITION CONT'D | or | <input type="checkbox"/> |
| | 15. ENGRG. DISPOSITION CONT'D | | <input checked="" type="checkbox"/> |

M. W. Kellogg Co. has been notified so that no further errors of this nature occur in future orders.

RECEIVED

JAN 6 1974
 BECHTEL POWER CORP.
 JOB 7220
 PN
 FER _____

NONCONFORMANCE REPORT

1. PAGE 1 OF 1
14. NCR NO. 45

DRAWING/PART NO. ch. Spec. 7220-C-230	REV. 2	7. PROJECT NO. 7220	12. REPORTED BY <i>Gay W. Knoll</i>	DATE 1-18-74
ITEM DESCRIPTION Incoming Concrete Aggregate		8. ITEM LOCATION On-Site Batch Plant	13. VALIDATED BY <i>J. C. Williams</i>	DATE 1-22-74
SERIAL NUMBER N/A		9. STARTUP SYSTEM NO. N/A	14. REPLACEMENT PART NO. N/A	REV.
PURCHASE ORDER NO. 20-C-230		10. QC FIELD INSPECTION PLAN NO. N/A	16. REPLACEMENT SERIAL NO. N/A	
CONTRACTOR/LOCATION Champion, Inc.			11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
17. SOURCE Subcontractor, Champion, Inc.				

25. DISPOSITION CONCURRENCE				
REWORK	NO. OF TESTS	REPAIR	NO. OF TESTS	DATE
	X			
PROJECT FIELD ENGINEER <i>Jay C. Williams</i>			DATE 1/19/74	
PROJECT FIELD QC ENGINEER <i>J. C. Williams</i>			DATE 1-22-74	
AUTHORIZED INSPECTOR			DATE	

18. ROUTING INSTRUCTIONS: ROUTE TO FIELD ENGINEERING ROUTE TO MATERIAL SUPERVISOR

19. NONCONFORMING CONDITION:
1. On January 15 and 16, 1974, the 1 1/2" and 3/4" concrete aggregate delivered to the On-Site Batch Plant was contaminated with rock salt.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

1. Aggregates rejected due to contamination by rock salt.
Stockpiles to be re-inspected to insure complete removal of contaminated material. *Gay W. Knoll 1-18-74*

21. FIELD DISPOSITION RESULT:
Gay W. Knoll 1-24-74
As of 1-22-74 all contaminated aggregates have been removed from site. Stockpiles have been re-inspected & are accepted for use.

22. ENGINEERING DISPOSITION

23. ENGINEERING DISPOSITION RESULTS: USE
Gay W. Knoll 1-24-74
STOCK PILE INSPECTED 2/2/74
NOW CONFORMING MATERIAL
HAS BEEN SHIPPED RECYCLED

24. IS DESIGN CHANGE REQUIRED? NO YES, SEE ATTACHED:

DRAWING _____ REV. _____ DCN _____
SPEC. _____ REV. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION: RETURN TO SUPPLIER SCRAP

REMARKS _____

27. QC ACCEPTANCE
J. C. Williams 2/2/74
QC ENGINEER DATE
AUTHORIZED INSPECTOR DATE

NONCONFORMANCE REPORT

1. PAGE 1 OF 22	14. NCR NO 46
25. DISPOSITION CONCURRENCE	
REWORK	REJECT
REPAIR	U.S.A. IT
DOE	DATE
PROJECT FIELD ENGINEER	DATE
PROJECT ENGINEER	DATE
PROJECT FIELD QC ENGINEER	DATE
AUTHORIZED INSPECTOR	DATE

DRAWING/PART NO. E-10 REV. 0	7. PROJECT NO. 7220	12. REPORTED BY <i>[Signature]</i>	DATE 1/21/74
ITEM DESCRIPTION US Reinforcing Bar	8. ITEM LOCATION Field Storage Area & Cont. #2 Base Mat	13. VALIDATED BY <i>[Signature]</i>	DATE 1-21-74
SERIAL NUMBER: N/A	9. STARTUP SYSTEM NO. N/A	14. REPLACEMENT PART NO. N/A	REV.
PURCHASE ORDER NO. C-39A	10. QC FIELD INSPECTION PLAN NO. C-55-4A	16. REPLACEMENT SERIAL NO. N/A	
CONTRACTOR/LOCATION Inland-Ryerson	11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17. SOURCE Subcontractor Inland-Ryerson	
ROUTING INSTRUCTIONS:	<input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING <input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR		

NONCONFORMING CONDITION:
 During the course of testing Vertical Qualification Splice X-7-V, Grade 60, 18S reinforcing bar from U. S. Steel Corp., Heat No. 79T457 used in making the splice broke at an indicated total load of 310,000 pounds. This total load indicates a tensile stress at failure of 77,500 P.S.I. The tensile requirements of Grade 60, 18S bar is 90,000 P.S.I. as specified in ASTM-A-615-72, Table 2, Page 689.

FIELD DISPOSITION
 FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Re-qualification of reinforcing steel is not included as a part of the testing program for Cadweld splices. The testing referred to in block 19 is governed by Specification 7220-C-231, not 7220-C-39 as listed in block 5. Justification for this is the fact that a Cadweld splice is comprised of three (3) items: 1) The Cadweld sleeve, 2) The filler metal transferring shear from rebar deformations to sleeve grooves, and 3) The reinforcing steel. Engineering concurs with Field's position not to consider the rebar as a nonconforming item. The test is used to qualify the Cadweld crew for Cadweld operation. Rebar has previously successfully passed the user test requirements and the average tensile stress of the ten qualification tests, using the rebar from heat number 79T457, is 107.87ks; (see telecon, R. Ryden to D. Grote dated 1/22/74) which is also greater than 90ksi as required by Specification 7220-C-231. Engineering recommends that the test result

21. FIELD DISPOSITION RESULTS:
23. ENGINEERING DISPOSITION RESULTS:

15. DESIGN CHANGE REQUIRED
 NO
 YES, SEE ATTACHED:

DRAWING REV. _____ DCN _____
 REV. _____ ADD. _____

28. REJECTED MATERIAL DISPOSITION
 RETURN TO SUPPLIER
 SCRAP

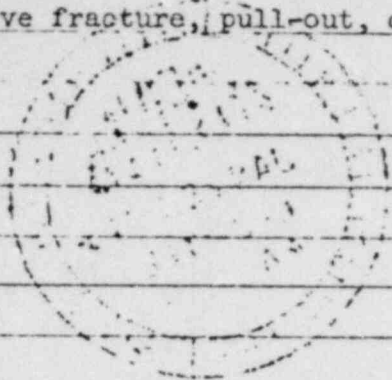
REMARKS

27. QC ACCEPTANCE

QC ENGINEER *[Signature]* DATE 1/21/74

AUTHORIZED INSPECTOR _____ DATE _____

steel. Testing referred to in block 19 represents these three (3) items as a unit. Therefore, acceptability of the splice is governed by the requirements of Section 10.3 of Specification 7220-C-231 regardless of whether the failure is sleeve fracture, pull-out, or rebar fracture. It is Field Engineering's position that this is not a nonconforming item.



Richard Dote
1/29/74
T. Johnson
1/29/74

Block 22 (Cont.)

(77.5ksi) be used to evaluate only the intended material under test -

i.e. the cadweld. As such, this is an acceptable value.

WJ 2/1/74 JCH 2/1/74

NONCONFORMANCE REPORT

DRAWING/PART NO. S2-6-U-2	REV.	7. PROJECT NO. 7220	12. REPORTED BY <i>C.F. Clark</i>	DATE 1-21-74
ITEM DESCRIPTION Upper Liner Plate		8. ITEM LOCATION Liner Plate Assembly Area	13. VALIDATED BY <i>J. Conolly</i>	DATE 1-21-74
SERIAL NUMBER Sue Block 19.		9. STARTUP SYSTEM NO. NA	14. REPLACEMENT PART NO. NA	REV.
PHILHANE ORDER NO. 7220-C-50A		10. QC FIELD INSPECTION PLAN NO. C-111-37	15. REPLACEMENT SERIAL NO. NA	
CONTRACTOR/LOCATION Southern Boiler & Tank Works / Memphis, Tenn.		11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	16. SOURCE Vendor	
ROUTING INSTRUCTIONS: <input type="checkbox"/> ROUTE TO FIELD ENGINEERING <input checked="" type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR				

1. PAGE 1 OF 1	14. NCR NO. 47				
25. DISPOSITION CONCURRENCE					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;"><input checked="" type="checkbox"/> REWORK</td> <td style="width: 25%;"><input type="checkbox"/> REJECT</td> <td style="width: 25%;"><input type="checkbox"/> REPAIR</td> <td style="width: 25%;"><input type="checkbox"/> HOLD AS IS</td> </tr> </table>	<input checked="" type="checkbox"/> REWORK	<input type="checkbox"/> REJECT	<input type="checkbox"/> REPAIR	<input type="checkbox"/> HOLD AS IS	DATE <i>1-23-74</i>
<input checked="" type="checkbox"/> REWORK	<input type="checkbox"/> REJECT	<input type="checkbox"/> REPAIR	<input type="checkbox"/> HOLD AS IS		
PROJECT FIELD ENGINEER <i>J. Conolly</i>					
PROJECT & ENGINEER <i>J. Conolly</i>					
PROJECT FIELD QC ENGINEER <i>J. Conolly</i>					
AUTHORIZED INSPECTOR DATE <i>2-2-74</i>					

3. NONCONFORMING CONDITION:

Discrepancy exists between slab numbers stamped on the upper plate of assembly S2-6-U2.

Mill stamped slab number is Z-97034.

Shop stamped slab number is Z-97014.

Documentation seems to authenticate the shop stamped number.

FIELD DISPOSITION

FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Field Material Coordinator will contact Vendor and will follow up for positive identification in writing of correct slab number. This will be furnished to PFE and documented in Block 21.

Harsh 1-24-74

21. FIELD DISPOSITION RESULTS:

Attached letter from Southern Boiler & Tank Works, dated Jan. 25, 1974 is authority to re-stencil correct Slab Number Z-97014.

24. DESIGN CHANGE REQUIRED <input type="checkbox"/> NO <input type="checkbox"/> YES, SEE ATTACHED:	26. REJECTED MATERIAL DISPOSITION <input type="checkbox"/> RETURN TO SUPPLIER <input type="checkbox"/> SCRAP	27. QC ACCEPTANCE DATE <i>2/20/74</i>
DRAWING REV. _____ DCN _____ EC. REV. _____ ADD. _____	REMARKS	GC ENGINEER AUTHORIZED INSPECTOR

Bechtel Power Corporation

Interoffice Memorandum

To J. Connolly

Date January 28, 1974

Subject Job 7220 Midland Project
NCR No. 47
PO 7220-C-50A

From L. Carter


of Field Procurement

Copies to J. Brush
PO File

At Midland, Michigan

Attached is a letter from the Vendor indicating the correct slab number to be used on part No. S2-6-U-2.

This information should be entered in box No. 21 on the Nonconformance Report.


L. Carter
Material Coordinator

VER
SOUTHERN BOILER & TANK WORKS, INC.

MANUFACTURERS OF CARBON STEEL, ALUMINUM & STAINLESS STEEL
TANKS, PRESSURE VESSELS AND FABRICATORS OF PLATE STEEL

(901) 527-7371-1190 THOMAS STREET

P. O. BOX 7274 - MEMPHIS, TENN. 38107



January 25, 1974

Bechtel Power Co.
P.O. Box 2167
Midland, Mich. 48640

Attention: Mr. Lee Carter

Gentlemen:

In response to our telephone conversation with Mr. Lee Carter, we have checked our files on shell liner plate material 2S-2-6.

Our investigation indicates that the correct heat number should read 51721292, serial number 297014.

This letter will serve as your authority to re-stencil this particular shell liner panel accordingly.

Sincerely,

SOUTHERN BOILER & TANK WORKS, INC.

Robert L. Strong
Robert L. Strong
Chief Engineer

RLS:dh

NONCONFORMANCE REPORT

1. PAGE 1
of 1
14. REV. NO. 49

REV. _____	7. PROJECT NO. 7220	12. REPORTED BY <i>[Signature]</i>	DATE 1-21-74
ITEM DESCRIPTION penetration	8. ITEM LOCATION Jig Building	11. VALIDATED BY <i>[Signature]</i>	DATE 1-21-74
SERIAL NUMBER -12-L	9. STARTUP SYSTEM NO. NA	13. REPLACEMENT PART NO. NA	REV. _____
PURCHASE ORDER NO. 220-C-50A	10. QC FIELD INSPECTION PLAN NO. C-111-16	16. REPLACEMENT SERIAL NO. NA	
CONTRACTOR/LOCATION		11. ASME CODE ITEM	17. SOURCE
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Construction

25. DISPOSITION CONCURRENCE				
REWORK	REJECT	REPAIR	USE AS IS	DOC
			<input checked="" type="checkbox"/>	
AUTHORIZED INSPECTOR <i>[Signature]</i>			DATE 1-11-74	
PROJECT ENGINEER <i>[Signature]</i>			DATE 1-13-74	
PROJECT FIELD QC ENGINEER <i>[Signature]</i>			DATE 1-23-74	
AUTHORIZE INSPECTOR			DATE	

ROUTING INSTRUCTIONS: ROUTE TO FIELD ENGINEERING ROUTE TO MATERIAL SUPERVISOR

NONCONFORMING CONDITION:
 The weld gap between the penetration R-12-L and the liner plate assembly S1-3-U-2 is 5/8" which is in excess of the 1/2" gap permitted by specification 7220-C-111.

FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

to use as is and make additional stringer passes between the 1/4 inch liner plate and the thickened liner plate. This will fill the 5/8 root gap with properly applied weld material.

[Signature] 1-23-74
[Signature] 1-24-74

21. FIELD DISPOSITION RESULTS:

ENGINEERING DISPOSITION
 Telecon approval on 1/24/74, and confirming TWX BEBC 166 sent 1/24/74 to "use as is" as described in item 20 above. Rationale: With proper care and inspection, the wider root gap can be properly welded to meet the spec intent. *[Signature]* 1/24/74

23. ENGINEERING DISPOSITION RESULTS:

IS DESIGN CHANGE REQUIRED NO YES, SEE ATTACHED:

REV. _____ DCN _____

REV. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS

27. QC ACCEPTANCE

QC ENGINEER *[Signature]* 1/21/74

AUTHORIZED INSPECTOR _____ DATE _____

BECHTEL MIDL

BECHTEL ARB
810-223-6032 CLG 210-266-9497

TWX #2895 1/24/74 16 30
ATTN.: E. E. FELTON

BEBC -166

SUBJECT: MIDLAND PLANT UNITS 1 & 2
JOB NO. 7220
NCR C-49
• FILE: 0274, C-111PR

I-269 - ~~to~~

CONFIRMING 1/24/74 TELECON BETWEEN J. HINK AND C. CLARK,
RE NCR C-49. ENGINEERING APPROVES TO "USE AS IS" THE 5/8"
WELD GAP, AND MAKE ADDITIONAL STRINGER PASSES AS DESCRIBED
IN ITEM 10 OF THE SUBJECT NCR.

R. CASTLEBERRY FOR P. A. MARTINEZ
ANN ARBOR/7PE2118/7220-001/KTM

BECHTEL MIDL
e

Circle 2

J. R. Kennedy

1-25-74

NCR-C-49

1/25/74

TWX BEBC 166

*disposition
satisfactory to all*

*Held tag renewal
to permit work to
progress pending
official disposition
on eng per TWX.*

A. L. Baulden

RECEIVED

JAN 25 1974

QUALITY CONTROL
BECHTEL JOB 7220



NONCONFORMANCE REPORT

1. PAGE 1	14. NUMBER		
OF 2	20		
25. DISPOSITION CONCURRENCE			
NEW WORK	PROJECT	REPAIR	USE AS IS
X			
PROJECT FIELD ENGINEER		DATE	
		1-21-74	
PROJECT ENGINEER		DATE	
		1-21-74	
PROJECT FIELD QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	

2. DRAWING/PART NO. Spec. 208	REV. 2	7. PROJECT NO. 7220	12. REPORTED BY Paul T. Conforti	DATE 1/21/74
3. ITEM DESCRIPTION Testing Frequency		8. ITEM LOCATION U. S. Testing Laboratory		
4. SERIAL NUMBER N/A		9. STARTUP SYSTEM NO. N/A		
5. PURCHASE ORDER NO. N/A		10. QC FIELD INSPECTION PLAN NO. N/A		
6. CONTRACTOR/LOCATION U. S. Site Testing Laboratory		11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		15. REPLACEMENT PART NO. N/A
				16. REPLACEMENT SERIAL NO. N/A
				17. SOURCE N/A
16. ROUTING INSTRUCTIONS: <input type="checkbox"/> ROUTE TO FIELD ENGINEERING <input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR				

19. NONCONFORMING CONDITION: Failure to comply with the frequency requirement for gradation analysis of incoming concrete agg. to be used by Champion, Inc. in the production of concrete for Job 7220. U. S. Testing Laboratory Q. A. Manual states such testing will be made on every incoming 120 tons. This was not done during the period 12-3-73 thru 1-16-74; a minimum of 20 tests were indicated on the coarse agg. received and only 7 were made.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

The following corrective action has been taken:

- 1.) U. S. Testing Laboratory Chief was notified of the discrepancy.
- 2.) He was informed that even though final acceptance of concrete aggregate is based on test results of samples obtained from the belts loading the plant bins. He is still expected to fully comply with the requirements of his Q.A. Program that states (Con't. on Sht. 2)

22. ENGINEERING DISPOSITION

23. ENGINEERING DISPOSITION RESULTS:

24. IS DESIGN CHANGE REQUIRED <input type="checkbox"/> NO <input type="checkbox"/> YES, SEE ATTACHED:	25. REJECTED MATERIAL DISPOSITION <input type="checkbox"/> RETURN TO SUPPLIER <input type="checkbox"/> SCRAP	27. QC ACCEPTANCE GC ENGINEER: <i>[Signature]</i> DATE: 2-21-74 AUTHORIZED INSPECTOR: DATE:
DRAWING REV. _____ DCN _____	REMARKS	
SPEC. REV. _____ ADD. _____		

SUPERSEDED BY NCR # 50 REV #1 2/21/74

(Item 19 cont'd)

(3) Concrete placement No. CC(582.0)a - pour No. 15 - Inspection Plan //C-231-55 - shows 8 c.y. each of A-1 mix on tickets #11835, & #11836 placed with an out of spec. entrained air content of 6.5%. (See Item 1)

(4) Concrete placement No. A(573)a - pour No. 17 - on field placement form QC-C-2 inspection plan C-231-66 - shows an 8 c.y. load of A-2 mix ticket No. 11874 was placed with an entrained air content of 6.4%. (See Item 1) The following two loads 3 c.y. on ticket 11873 and 1 1/2 c.y. on ticket 11875 were placed without testing. A signed statement at the bottom of the sheet states that a 2% air loss between plant & placement would bring the air down into spec. range. The statement does not reference documented correlation data to validate this. Research showed there is no documented back-up record of testing for air loss in transit.

(5) Concrete placement No. CC(585)a - pour No. 19 on plant and field placement forms QC-C-2 shows that 8 c.y. of A-2 mix on ticket No. 11881 was placed with an entrained air of 6.8% 8 c.y. was placed on ticket No. 11882 without testing. The inspection plan No. is C-231-71.

*SUPERSEDED BY NCR 51 REV 1
JAW/MLK 3-21-79*

NONCONFORMANCE REPORT

1. PAGE 1 OF <u>2</u>	14. NCR NO. 50 Rev.1
25. DISPOSITION CONCURRENCE	
REWORK	REJECT
REPAIR	USE AS IS
DISCARD	DATE
PROJECT ENGINEER <i>Jerry C. [Signature]</i>	DATE <u>2/1/74</u>
PROJECT FIELD QC ENGINEER <i>[Signature]</i>	DATE <u>2/1/74</u>
AUTHORIZED INSPECTOR <i>[Signature]</i>	DATE

DRAWING/PART NO. Spec, 208	REV. 2	7. PROJECT NO. 7220	12. REPORTED BY <i>[Signature]</i>	DATE 1-24-74
ITEM DESCRIPTION Testing Frequency		8. ITEM LOCATION U. S. Testing Laboratory	13. VALIDATED BY <i>[Signature]</i>	DATE 1-24-74
SERIAL NUMBER N/A		9. STARTUP SYSTEM NO. N/A	15. REPLACEMENT PART NO. N/A	REV.
PURCHASE ORDER NO. N/A		10. QC FIELD INSPECTION PLAN NO. N/A	16. REPLACEMENT SERIAL NO. N/A	
CONTRACTOR/LOCATION		11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17. SOURCE N/A	

8. ROUTING INSTRUCTIONS: ROUTE TO FIELD ENGINEERING ROUTE TO MATERIAL SUPERVISOR

9. NONCONFORMING CONDITION: Failure to comply with the frequency requirement for gradation analysis of incoming concrete agg. be used by Champion, Inc. in the production of concrete for Job 7220. U. S. Testing Laboratory Q.A. Manual states such testing will be made on every incoming 120 tons. This was not done during the period 12-3-73 thru 1-16-74; a minimum of 20 tests were indicated on the coarse agg. received and only 7 were made.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

The following corrective action has been taken:

- 1.) U. S. Testing Laboratory Chief was notified of the discrepancy.
- 2.) He was informed that even though final acceptance of concrete aggregate is based on test results of samples obtained from the belts loading the plant bins, He is still expected to fully comply with the requirements of his Q.A. Program that states (Con't sht. 2)

22. ENGINEERING DISPOSITION

21. FIELD DISPOSITION RESULTS:

23. ENGINEERING DISPOSITION RESULTS:

24. IS DESIGN CHANGE REQUIRED NO YES, SEE ATTACHED:

DRAWING _____ REV. _____ DCN _____
SPEC. _____ EV. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS _____

27. QC ACCEPTANCE

QC ENGINEER _____ DATE _____
AUTHORIZED INSPECTOR _____ DATE _____

FIELD DISPOSITION CONT'D

screen tests will be made on each incoming 120 tons of coarse agg. (by stone size).

.) A letter will be sent by Bechtel Subcontract Office to U. S. Testing Home Office informing them of this deficiency and of the necessity for strict compliance with their accepted Q.A. Program in the future.

.) The Bechtel Q.C. Test Lab. Supervisor will personally audit and initial the site Labs Log on incoming aggregates once a week.

NONCONFORMANCE REPORT

1. DRAWING/PART NO. Spec. 97220-C-230	REV. 2	7. PROJECT NO. 07220	12. VALIDATED BY <i>Paul Casper</i>	DATE 1-22-74	14. FILE NO. 51
2. ITEM DESCRIPTION Concrete Placements		8. ITEM LOCATION As Shown in Item 19	4. VALIDATED BY <i>M. Kelly</i>	DATE 1-23-74	25. DISPOSITION CONCURRENCE
3. SERIAL NUMBER N/A		9. STARTUP SYSTEM NO. N/A	15. REPLACEMENT PART NO. N/A	REV.	PROJECT FIELD ENGINEER
4. PURCHASE ORDER NO. N/A		10. QC FIELD INSPECTION PLAN NO. As Shown in Item 14	16. REPLACEMENT SERIAL NO. N/A		PROJECT ENGINEER
5. CONTRACTOR/LOCATION N/A		11. ACME CODE ITEM <input type="checkbox"/> YES <input type="checkbox"/> NO	17. SOURCE Concrete supplied by Champion, Inc.		PROJECT FIELD QC ENGINEER
6. ROUTING INSTRUCTIONS: <input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING		<input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR			AUTHORIZED INSPECTOR

9. NONCONFORMING CONDITION:

(1) Concrete placement No. CC(582-25)a - Pour No. 4 on QC-C2 form for Concrete Placement record in the field, ticket #11645 showed 8 c.y. of A-2 mix going into the pour with an entrained air content of 2.0%. The allowable range as shown in Spec. C-230, Para. 9.1.5 is 3° - 6°. The three following loads - tickets #11646, 11647 & 11648 were placed without testing. The inspection plan for this pour is No. C-231-13. (2) Concrete placement No. A(578.67)a&b - pour No. 8 - Inspection Plan C-231-30 - on field placement form QC-C2 ticket No. 11757 shows 8 c.y. of A2 mix being placed with an entrained air content of 6.1%, maximum allowable is 6.0%. (See item 1 above)

10. FIELD DISPOSITION: FIELD RECOMMENDATION/ROUTE TO FIELD ENGINEERING

Procedures for placing concrete have been reiterated to all placing engineers. Particular points stressed were testing procedures and the fact that no specification relaxation is allowed for lean backfill concrete.

Test cylinder results for the placements mentioned in

21. FIELD DISPOSITION RESULTS:

23. ENGINEERING DISPOSITION RESULTS:

SUPERSEDED BY REVISED

VOID

18. IS DESIGN CHANGE REQUIRED <input type="checkbox"/> NO <input type="checkbox"/> YES, SEE ATTACHED:	24. REJECTED MATERIAL DISPOSITION <input type="checkbox"/> RETURN TO SUPPLIER <input type="checkbox"/> SCRAP	27. QC ACCEPTANCE QC ENGINEER AUTHORIZED INSPECTOR
DRAWING REV. DCN P ADD.	REMARKS	DATE 2-21-74

NONCONFORMANCE REPORT (CONT'D)

1. PAGE 2 OF 2

14. NCR NO. 51

(Item 19 cont'd)

(3) Concrete placement No. CC(582.0)a - pour No. 15 - Inspection Plan #C-231-55 - shows 8 c.y. each of A-1 mix on tickets #11835, & #11836 placed with an out of spec. entrained air content of 6.5%. (See Item 1)

(4) Concrete placement No. A(573)a - pour No. 17 - on field placement form QC-C-2 inspection plan C-231-66 - shows an 8 c.y. load of A-2 mix: ticket No. 11874 was placed with an entrained air content of 6.4%. (See Item 1) The following two loads 3 c.y. on ticket 11873 and 1½ c.y. on ticket 11875 were placed without testing. A signed statement at the bottom of the sheet states that a 2% air loss between plant & placement would bring the air down into spec. range. The statement does not reference documented correlation data to validate this. Research showed there is no documented back-up record of testing for air loss in transit.

(5) Concrete placement No. CC(585)a - pour No. 19 on plant and field placement forms QC-C-2 shows that 8 c.y. of A-2 mix on ticket No. 11881 was placed with an entrained air of 6.8% 8 c.y. was placed on ticket No. 11882 without testing. The inspection plan No. is C-231-71.

NONCONFORMANCE REPORT

1 PAGE 1 OF 2 14. REV. NO. 51 Nov. 1

DRAWING/PART NO. Spec. 07220-C-230	REV. 2	7. PROJECT NO. 07220	12. REPORTED BY <i>David A. ...</i>	DATE 2-8-74
ITEM DESCRIPTION Concrete Placements		8. ITEM LOCATION As Shown in Item 19	13. VALIDATED BY <i>L. ...</i>	DATE 2-8-74
SERIAL NUMBER N/A		9. STARTUP SYSTEM NO. N/A	15. REPLACEMENT PART NO. N/A	REV.
PURCHASE ORDER NO. N/A		10. QC FIELD INSPECTION PLAN NO. As Shown in Item 14	16. REPLACEMENT SERIAL NO. N/A	
CONTRACTOR/LOCATION N/A		11. ASME CODE ITEM <input type="checkbox"/> YES <input type="checkbox"/> NO	17. SOURCE Concrete supplied by Champion, Inc.	
8. ROUTING INSTRUCTIONS:		<input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING <input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR		

25. DISPOSITION CONCURRENCE				
REWORK	REJECT	REPAIR	REPLACE	STOP
PROJECT FIELD ENGINEER				DATE
PROJECT ENGINEER				DATE
PROJECT FIELD QC ENGINEER				DATE
AUTHORIZED INSPECTOR				DATE

9. NONCONFORMING CONDITION: (1) Concrete placement No. CC(582-25)a - Pour No. 4 - on QC-C2 form for Concrete Placement record in the field, ticket #11645 showed 8 c.y. of A-2 mix going into the pour with an entrained air content of 2.8%. The allowable range as shown in Spec. C-230, Para. 9.1.5 is 3° - 6°. The three following loads - tickets #11646, 11647 & 11648 were placed without testing. The inspection plan for this pour is No. C-231-13. (2) Concrete placement No. A(578.67)a&b - pour No. 8 - Inspection Plan C-231-30 - on field placement form QC-C2 ticket no. 11757 shows 8 c.y. of A2 mix being placed with an entrained air content of 6.1%, maximum allowable is 6.0%. (see item 1 above) (cont'd sheet 2)

10. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Procedures for placing concrete have been reiterated to all placing engineers. Particular points stressed were testing procedures and the fact that no specification relaxation is allowed for lean backfill concrete.

Test cylinder results for the placements mentioned in the nonconformance are as follows:
(cont'd sheet 2)

21. FIELD DISPOSITION RESULTS:

23. ENGINEERING DISPOSITION RESULTS:

RECEIVED
FEB 15 1974
BECHTEL POWER CORP.
JOB 7220

24. IS DESIGN CHANGE REQUIRED NO YES, SEE ATTACHED:

DRAWING REV. _____ DCN _____
SPEC EV. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS

27. QC ACCEPTANCE

QC ENGINEER _____ DATE _____
AUTHORIZED INSPECTOR _____ DATE _____

NONCONFORMANCE REPORT (CONT'D)

- Item 19 cont'd)
- B) Concrete placement No. CC(582.0)a - pour No. 15 - Inspection Plan #C-231-55 - shows 8 c.y. each of A-1 mix on tickets 11835 & #11836 placed with an out of spec. entrained air content of 6.5%. (See Item 1)
- C) Concrete placement No. A(573)a - pour No. 17 - on field placement form QC-C-2 inspection plan C-231-66 - shows an c.y. load of A-2 mix ticket No. 11874 was placed with an entrained air content of 6.4%. (See Item 1) The following two loads 3 c.y. on ticket 11873 and 1 1/2 c.y. on ticket 11875 were placed without testing. A signed statement at the bottom of the sheet states that a 2% air loss between plant & placement would bring the air down into spec. range. The statement does not reference documented correlation data to validate this. Research showed there is no documented back-up record of testing for air loss in transit.
- (5) Concrete placement No. CC(585)a - pour No. 19 on plant and field placement forms QC-C-2 shows that 8 c.y. of A-2 mix on ticket No. 11881 was placed with an entrained air of 6.8% 8 c.y. was placed on ticket No. 11882 without testing. The Inspection Plan No. is C-231-71.

(Item 20 cont'd)

	* CC(582.25)a	A(578.67)a	CC(582.0)a	* A(573.0)a	CC(585)a
7 Day Ave.	2095	2035	4095	2630	No test cylinders taken on this placement. Date and mix same as A(573)a
28 Day Ave.	3440	3185	5095	3910	
90 Day Ave.	5145	4125	6550	5075	

All concrete listed is lean backfill, 2000 psi.
Field recommends "use as is".

* Denotes actual ticket in question.

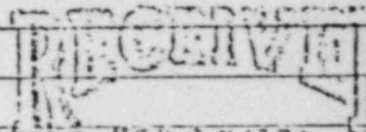
Dany W. Powell 2-8-74
Terry C. Kilgus 2-15-74

NONCONFORMANCE REPORT

1. PAGE 1 OF 5	14. NCR NO. 52
25. DISPOSITION CONCURRENCE	
REWORK	REPAIR
<input type="checkbox"/>	<input checked="" type="checkbox"/>
Terry C. Valenzuela 2-27-74 PROJECT FIELD ENGINEER DATE PROJECT ENGINEER DATE PROJECT FIELD QC ENGINEER DATE AUTHORIZED INSPECTOR DATE	

2. DRAWING PART NO. Spec. C-230	REV. 2	7. PROJECT NO. 07220	12. REPORTED BY Paul Carpenter	DATE 1-23-74
3. ITEM DESCRIPTION Concrete Placement		8. ITEM LOCATION Concrete Placement A(574)a	13. VALIDATED BY [Signature] DATE 1-23-74	
4. SERIAL NUMBER N/A		9. STARTUP SYSTEM NO. N/A	14. REPLACEMENT PART NO. N/A	REV.
5. PURCHASE ORDER NO. N/A		10. QC FIELD INSPECTION PLAN NO. C-231-11	16. REPLACEMENT SERIAL NO. N/A	
6. CONTRACTOR/LOCATION Champion, Inc. - On Site Plant		11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17. SOURCE N/A	
18. ROUTING INSTRUCTIONS: <input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING <input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR				

19. NONCONFORMING CONDITION: Concrete placement No. A(574)a made on 9-24-73, 3 c.y. of out-of-spec. D-2 concrete was placed. This mix has a rejection limit of 4 1/2" of slump and the subject mix had a slump of 6 1/2".


 FEB 26 1974
 BECHTEL POWER CORP
 300 7220
 PN

20. FIELD DISPOSITION FIELD RECOMMENDATION: ROUTE TO PROJECT ENGINEERING

All placing engineers have been reinstructed in proper testing procedures. Concrete that is to be tested will not be placed in the forms until all tests are completed and test results are satisfactory. Test results for placement A(574)a are as follows:

Average 7 Day = 4735

Average 28 Day = 6260

Continued on Sheet 2

21. FIELD DISPOSITION RESULTS:

22. ENGINEERING DISPOSITION

Based on test results (given in item 20) for the cylinders representing this placement, this concrete more than adequately meets the strength requirements of a D-2 mix (5000 psi @ 90 days). Hence, engineering recommends use-as-is. *PKR 2/20/74*
J.A. 2/20/74

23. ENGINEERING DISPOSITION RESULTS:

24. IS DESIGN CHANGE REQUIRED NO YES, SEE ATTACHED:

DRAWING _____ REV. _____ DCN _____

SPEC. _____ REV. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS

27. QC ACCEPTANCE

[Signature] 2/27/74
 QC ENGINEER DATE

AUTHORIZED INSPECTOR _____ DATE _____

NONCONFORMANCE REPORT (CONT'D)

1. PAGE 2 OF 2

14. NCR NO 52

#20 Field Recommendation/Route To Project Engineering Continued

Average 90 Day = 7510

Results are average of four sets of cylinders, representing 222 cubic yards placed.
Field recommends use as is.

Gay W. Kneel 2-5-74

P. D. Ste for T. Wehryono 4/5/74

NONCONFORMANCE REPORT

1. PAGE 1		14. RCH NO.	
OF 1		53	
25. DISPOSITION CONCURRENCE			
REWORK	REJECT	REPAIR	USE AS IS
X			
PROJECT FIELD ENGINEER		DATE	
<i>Jerry C. Delongore</i>		1-29-74	
PROJECT ENGINEER		DATE	
<i>J. Kelly</i>		2-4-74	
PROJECT FIELD QC ENGINEER		DATE	
AUTHORIZE INSPECTOR		DATE	

DRAWING/PART NO.		REV.	7. PROJECT NO.		12. REPORTED BY		DATE
Technical Spec. 7220-C-230		2	7220		Gary W. Knoll		1-29-74
ITEM DESCRIPTION		8. ITEM LOCATION		13. VALIDATED BY		DATE	
Incoming concrete aggregate		On-Site Batch Plant		<i>J. Kelly</i>		1-27-74	
SERIAL NUMBER		9. STARTUP SYSTEM NO.		14. REPLACEMENT PART NO.		REV.	
N/A		N/A		N/A			
PURCHASE ORDER NO.		10. QC FIELD INSPECTION PLAN NO.		16. REPLACEMENT SERIAL NO.			
7220-C-230		N/A		N/A			
CONTRACTOR/LOCATION			11. ASME CODE ITEM		17. SOURCE		
Champion, Inc. Iron Mountain, Michigan			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		Subcontractor, Champion, Inc.		
8. ROUTING INSTRUCTIONS:				<input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING		<input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR	

9. NONCONFORMING CONDITION:

1. On January 22, 1974 165.05 tons of 1 1/2" concrete aggregates delivered to the On-Site Batch Plant was out of gradation specifications.

20. <input checked="" type="checkbox"/> FIELD DISPOSITION		<input type="checkbox"/> FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING	
1. 1 1/2" concrete aggregate delivered 1-22-74 has been rejected.			
The aggregates are to be removed from site.		<i>Gary W. Knoll 1-29-74</i> <i>J. Delongore 1-29-74</i>	
2. ENGINEERING DISPOSITION			

21. FIELD DISPOSITION RESULTS:	
The 1 1/2" Concrete aggregate was removed from site on January 31, 1974.	
<i>Gary W. Knoll 2-5-74</i>	
23. ENGINEERING DISPOSITION RESULTS:	

24. IS DESIGN CHANGE REQUIRED		<input type="checkbox"/> NO		26. REJECTED MATERIAL DISPOSITION		<input type="checkbox"/> RETURN TO SUPPLIER	
		<input type="checkbox"/> YES, SEE ATTACHED:				<input type="checkbox"/> SCRAP	
DRAWING _____ REV. _____ DCN _____				REMARKS _____			
SPEC. _____ REV. _____ ADD. _____							

27. QC ACCEPTANCE	
QC ENGINEER	
<i>Paul Casper</i>	
AUTHORIZE INSPECTOR	
DATE	
1-6-74	

GATE

NONCONFORMANCE REPORT

1. PAGE 1 OF 2	14. NCR NO. 54 Rev. 1			
25. DISPOSITION CONCURRENCE				
REWORK	REJECT	REPAIR	USE AS IS	DISC.
		X		
PROJECT FIELD ENGINEER <i>Terry C. Valenciano</i> 2-27-74		DATE		
PROJECT ENGINEER <i>[Signature]</i> 2-27-74		DATE		
PROJECT FIELD QC ENGINEER		DATE		
AUTHORIZED INSPECTOR <i>[Signature]</i>		DATE		

DRAWING/PART NO. Spec. 7220-C-111	REV. 2	7. PROJECT NO. 7220	12. REPORTED BY <i>[Signature]</i>	DATE 2-4-74
ITEM DESCRIPTION Type "B" Cadweld Sleeve	8. ITEM LOCATION Outer Primary Shield Wall	9. STARTUP SYSTEM NO. NA	13. RECOMMENDED BY <i>[Signature]</i>	DATE 1-31-74
SERIAL NUMBER NA	10. QC FIELD INSPECTION PLAN NO. C-55-12 Log #323	16. REPLACEMENT SERIAL NO. NA	14. REPLACEMENT PART	REV.
PURCHASE ORDER NO. 7220-C-52	11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17. SOURCE Construction		
CONTRACTOR/LOCATION Inland Ryerson				

8. ROUTING INSTRUCTIONS: ROUTE TO FIELD ENGINEERING ROUTE TO MATERIAL SUPERVISOR

9. NONCONFORMING CONDITION: Cadweld sleeve number 2D1B was rejected due to excessive voids and porosity. There are no procedures in Spec. 7220-C-111, Rev. 2 to remove and replace Cadweld sleeves on the thickened liner plate.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Cadweld number 2D1B was rejected by the field engineer and so noted in column #11 of the Q.C. Form (Cadweld). It is also shown as a reject on the Cadweld status drawings and on the sleeve itself. Spec. 7220-C-111 is being revised to include removing and replacing Cadweld sleeves on thickened liner plate. To date, no sleeve has been removed and no sleeve will be removed until a procedure exists. Q.A. Bulletin No. 14 to the NQAM, page

22. ENGINEERING DISPOSITION

Cadweld sleeve #2D1B shall be removed and replaced in accordance with Specification 7220-C-111, as revised by SCN C-111-4001 dated February 13, 1974. We have been advised that NQAM Bulletin #14 is being rescinded. This NCR should not be voided.

RK [Signature] 2/20/74
[Signature] 2/20/74

24. IS DESIGN CHANGE REQUIRED NO YES, SEE ATTACHED:

DRAWING _____ REV. _____ DCN _____

SPEC. _____ EV. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS _____

21. FIELD DISPOSITION RESULTS:

23. ENGINEERING DISPOSITION RESULTS:

27. QC ACCEPTANCE

QC ENGINEER _____ DATE _____

AUTHORIZED INSPECTOR _____ DATE _____

NONCONFORMANCE REPORT (CONT'D)

Cont. from page 1 of Block 20 (Field Recommendation/Route To Project Engineering)
2. paragraph 2, states that the circumstances identified in Block 19 do not require a Nonconformance Report. Field recommends this NCR be voided.

Richard White 7/13/74
Jimmy C. Chalkers 8-13-74



NONCONFORMANCE REPORT

1. PAGE 1 OF <u>5</u>	14. NCR NO. <u>55</u>		
25. DISPOSITION CONCURRENCE			
RETURN	DEFECT	DETAILS	DATE AS IS
PROJECT FIELD ENGINEER			DATE
PROJECT ENGINEER			DATE
PROJECT FIELD QC ENGINEER			DATE
AUTHORIZED INSPECTOR			DATE

2. DRAWING/PART NO. FSK-C-12 & C-109 Q	REV. 6	7. PROJECT NO. 7220	12. REPORTED BY L. Shively	DATE 1/28/74
3. ITEM DESCRIPTION Earthwork Zone 1 & 2		8. ITEM LOCATION Q Listed Dikes	13. VALIDATED BY <i>[Signature]</i>	DATE 1-4-74
4. SERIAL NUMBER NA	9. STARTUP SYSTEM NO. NA		15. REPLACEMENT PART NO. NA	REV.
5. PURCHASE ORDER NO. C-210 Rev. 2	10. QC FIELD INSPECTION PLAN NO. C-210 18, 28, 24, 31, 32, 17, 33 and 34		16. REPLACEMENT SERIAL NO. NA	
6. CONTRACTOR/LOCATION Canonie Const. Co. South Haven, Michigan		11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17. SOURCE Sub-Contractor	
18. ROUTING INSTRUCTIONS: <input type="checkbox"/> ROUTE TO FIELD ENGINEERING <input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR				

15. NONCONFORMING CONDITION: Spec. C-210-Rev. 2 section 12.6.1 states in part "The water content during compaction shall not be more than 2 percentage points below optimum moisture content and shall not be more than 2 percentage points above optimum moisture content..."

Contrary to the above, compaction test records indicate that material with out-of-specification moisture content was placed as shown in the following list:

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

As per IOM BEBC-104 dated Nov. 7, 1973, the optimum moisture content range was relaxed to 2% dry to 5% wet on zone 2 material in the Bullock Creek area and the other selected areas of the dike as specified by the Bechtel representative. The following data from block 19 is on zone 2 material and within 2% dry to 5% wet of optimum. It is listed separately for project engineering's evaluation to BEBC-104

22. ENGINEERING DISPOSITION

21. FIELD DISPOSITION RESULTS:

23. ENGINEERING DISPOSITION RESULTS:

24. IS DESIGN CHANGE REQUIRED NO YES, SEE ATTACHED:

DRAWING REV. _____ DCN _____

SPEC. REV. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS

27. QC ACCEPTANCE

QC ENGINEER _____ DATE _____

AUTHORIZED INSPECTOR _____ DATE _____

NONCONFORMANCE REPORT (CONT'D)

1. PAGE 2 OF 5

14. NCR NO. 55

TEST NO.	DATE	STATION	PLEV.	MOISTURE CONTENT	OPTIMUM MOISTURE	CURVE NO.	RIGHT OR LEFT G.	
North Plant Dike								
WOD 8- 1	9-12-73	7 + 32	610	10.4	7.1	COP 2Q	215' R	No Action Taken
3	9-12-73	8 + 93	610	9.6	12.6	COL 12	215' R	No Action Taken
4	9-14-73	10 + 50	612	6.8	11.8	COB 2	200' L	
5	9-14-73	9 + 50	612	6.6	11.8	COB 2	250' L	
8	9-18-73	9 + 19	610	4.5	7.1	COP 2Q	238' L	
9	9-18-73	6 + 52	610	13.0	10.3	COD-1	92' R	
12	9-25-73	4 + 09	608	10.0	7.4	COL-11	80' R	Reworked-No Retest
13	9-25-73	6 + 08	609	14.2	9.4	COD-8	105' R	Reworked-No Retest
14	9-25-73	9 + 08	612	17.2	9.4	COD-8	200' R	Reworked-No Retest
15	9-25-73	5 + 10	609	12.1	8.6	COF-2	80' R	Reworked-No Retest
19	9-25-73	8 + 59	611	15.9	11.2	COD-5	82' R	
23	10-06-73	8 + 92	613	20.7	10.8	COL-15	212' R	Material Replaced-No Retest
24	10-06-73	6 + 90	613	24.0	10.8	COL-15	212' R	Material Replaced-No Retest
29	10-08-73	4 + 25	613	18.3	14.7	COD-7	92' R	No Retest
32	10-12-73	1 + 00	615	6.9	9.4	COD-8	50' L	
36	10-17-73	8 + 82	615	15.2	10.8	COL-15	40' R	
37	10-17-73	7 + 82	615	14.2	10.8	COL-15	40' R	
38	10-19-73	8 + 99	615	19.4	10.8	COL-15	110' R	Reworked Area-No Retest
39	10-19-73	9 + 52	615	17.3	10.8	COL-15	110' R	No Retest
40	10-19-73	8 + 49	615	15.2	10.8	COL-15	210' R	
41	10-24-73	3 + 00	617	13.8	11.2	COD-4	150' R	Reworked Area
46	10-24-73	8 + 03	621	19.5	16.4	COD-2	Q	
47	10-25-73	6 + 03	621	10.0	7.4	COL-11	70' R	
48	10-25-73	6 + 03	621	12.6	9.4	COD-8	150' R	
54	08-73	4 + 00	624	14.6	11	COD-5	20' R	Retested Not Passed-See WOD

NONCONFORMANCE REPORT (CONT'D)

1. PAGE 3 OF 5

14. NCR NO. 55

TEST NO.	DATE	STATION	ELEV.	MOISTURE CONTENT	OPTIMUM MOISTURE	CURVE NO.	RIGHT OR LEFT G.	
WOD 8-55	11-08-73	4 + 00	623	18.3	11.2	COD-5	20' R	
59	11-10-73	5 + 00	624	16.5	11.8	COB-2	20' L	Moisture Too High
61	11-10-73	4 + 00	623	14.3	10.3	COD-1	200' R	No Action Until Spring
64	11-13-73	5 + 50	622	10.5	8.0	?	50' L	"Start Up"
West Plant Dike								
WOD 1- 1	9-11-73	5 + 30	610	4.8	12.0	COB 1	80' R	No Retest
2	9-11-73	3 + 85	610	4.7	12.0	COB 1	80' R	No Retest
3	9-11-73	2 + 70	610	5.0	12.0	COB 1	80' R	Reworked Area-No Retest
14	10-24-73	3 + 52	624	13.7	11.2	COD-5	75' R	
16	11-08-73	5 + 00	633	10.3	8.0	COD-11	25' R of shoulder	
North East Dike								
WOD 7-35	9-12-73	27 + 00	608	10.3	7.4	COL 11	?	
46	9-25-73	33 + 00	616	19.5	16.4	COD 2	10' R	Reworked-Retest (see below)
47	9-25-73	31 + 00	616	19.6	12.7	COB 3	10' R	Reworked-Retest
58	10-02-73	28 + 45	612	20.1	16.4	COD 2	85' R	
64	10-11-73	32 + 00	614	18.3	14.2	COL 8	90' R	
69	10-12-73	31 + 00	616	21.0	12.7	COB 3	12' R	Retest-See WOD 7-47
74	10-20-73	28 + 00	617	23.0	20.5	COD 6	10' R	
78	11-14-73	30 + 00	622	16.3	11.2	COD-5	10' R	
80	11-13-73	31 + 00	616	17.1	12.5	COD 12	20' R	Retest of 47 & 69 (failed)

TEST NO.	ZONE	MOISTURE CONTENT	OPTIMUM MOISTURE	DIFFERENCE FROM OPTIMUM	% COMPACTION
WOD8-9	2	13.0	10.3	+2.7	97.6
WOD8-12	2	10.0	7.4	+2.6	100.2
WOD8-13	2	14.2	9.4	+4.8	97.7
WOD8-19	2	15.9	11.2	+4.7	96.0
WOD8-29	2	18.3	14.7	+3.6	99.6
WOD8-36	2	15.2	10.8	+4.4	103.2
WOD8-37	2	14.2	10.8	+3.4	101.9
WOD8-40	2	15.2	10.8	+4.4	100.4
WOD8-41	2	13.8	11.2	+2.6	100.2
WOD8-47	2	10.0	7.4	+2.6	99.4
WOD8-48	2	12.6	9.4	+3.2	100.0
WOD8-59	2	16.5	11.8	+4.7	102.4
WOD8-61	2	14.3	10.3	+4.0	96.8
WOD1-14	2	13.7	11.2	+2.5	99.3
WOD7-35	2	10.3	7.4	+2.9	97.1
WOD7-46	2	19.5	16.4	+3.1	98.4
WOD7-58	2	20.1	16.4	+3.7	96.2
WOD7-64	2	18.3	14.2	+4.1	95.3
WOD7-74	2	23.0	20.5	+2.5	96.6

On the remainder of tests the field submits the following supplemental data for Project Engineering review & evaluation.

WOD8-1	2	10.4	7.1	+3.3	81.9
WOD8-3	2	9.6	12.6	-3.0	103.3
WOD8-4	1	6.8	11.0	-5.0	100.7
WOD8-5	1	6.6	11.8	-5.2	101.1

TEST NO.	ZONE	MOISTURE CONTENT	OPTIMUM MOISTURE	DIFFERENCE FROM OPTIMUM	% COMPACTION
WOD8-8	2	4.5	7.1	-2.6	97.7
WOD8-11	2	17.2	9.4	+7.8	86.3
WOD8-15	2	12.1	8.6	+3.5	94.9
WOD8-23	2	20.7	10.8	+9.9	94.9
WOD8-24	2	24.0	10.8	+13.2	100.8
WOD8-32	1	6.9	9.4	-2.5	95.7
WOD8-38	2	19.4	10.8	+8.6	95.2
WOD8-39	2	17.3	10.8	+6.5	95.6
WOD8-46	1	19.5	16.4	+3.1	97.8
WOD8-54	1	14.6	11.2	+3.4	97.4
WOD8-55	1	18.3	11.2	+7.1	90.5
WOD8-64	1	10.5	8.0	+2.5	100.5
WOD1-1	1	4.8	12.0	-7.2	95.9
WOD1-2	1	4.7	12.0	-7.3	98.7
WOD1-3	1	5.0	12.0	-7.0	93.7
WOD1-16	1	10.3	8.0	+2.3	99.6
WOD7-47	2	19.6	12.7	+6.9	87.3
WOD7-69	2	21.0	12.7	+8.3	93.3
WOD7-78	2	16.3	11.2	+5.1	97.3
WOD7-80	2	17.1	12.6	+4.5	93.9

If necessary, field recommends evaluation of affected in-place material be done at the same time that evaluation of areas affected by NCR C-26 are conducted.

W. K. K. 3-6-74

GROTE
JEFFERS
HUDSON
JAL

BEEC - 104

Date November 7, 1973

To E. E. Felton

From P. A. Martinez

Subject Midland Plant Units 1 & 2
Job No. 7220
Earthwork Moisture Content
File: C-210, C-208, 0274

Of Engineering

At Ann Arbor

Copies to J. H. Allen
J. C. Hink
R. L. Rixford
L. F. Wilcox

Reference: a) FCR-C-18 dated November 2, 1973

In response to your FCR (ref. a) and based on laboratory test data, compaction data, and location of the material being placed, specification C-210 can be relaxed with the following stipulations:

The optimum moisture content range can be specified as 2% dry to 5% wet of optimum provided that if the moisture content exceeds 2% wet of optimum the fill shall be placed with a compactive effort equal to at least 95% of the Bechtel modified proctor test result (20,000 foot pounds effort). This will be done at no additional cost to Bechtel. This also applies only to zone 2 material which is placed in the Bullock Creek area and in other selected areas of the dike as specified by the Bechtel representative. The moisture control specifications originally written for zone 1 material still apply to zone 1 material. That is, zone 1 material must be placed within a moisture content range of 2% dry to 2% wet.

The above change in allowable range of optimum moisture content for the zone 2 material may result in more than four passes of compaction equipment. However, as pointed out above, this additional effort will not be at the expense of Bechtel since it is being done to allow construction to continue and give the contractor the best utilization of his equipment and people.

P. A. Martinez
P. A. Martinez

RLR/rc

NONCONFORMANCE REPORT

1. PAGE 1 OF 1	18. NCL. NO. 56
25. DISPOSITION CONCURRENCE	
REWORK	REPAIR
<input checked="" type="checkbox"/>	<input type="checkbox"/>
PROJECT FIELD ENGINEER	DATE
<i>Richard H. H. H.</i>	3-8-74
PROJECT ENGINEER	DATE
<i>Richard H. H. H.</i>	3-11-74
PROJECT FIELD QC ENGINEER	DATE
AUTHORIZE INSPECTOR	DATE

2. DRAWING/PART NO. E-7/13,14,15,16 Spec. C-39	REV. 5	7. PROJECT NO. 7220	12. REPORTED BY <i>Richard H. H. H.</i>	DATE 2-4-74
3. ITEM DESCRIPTION Reinforcing Steel		8. ITEM LOCATION Poseyville Siding	13. VALIDATED BY <i>Richard H. H. H.</i>	
4. SERIAL NUMBER N/A		9. STARTUP SYSTEM NO. N/A	15. REPLACEMENT PART NO. N/A	
5. PURCHASE ORDER NO. 7220-39-AC Rev. 3		10. QC FIELD INSPECTION PLAN NO. C-39-10	16. REPLACEMENT SERIAL NO. N/A	
6. CONTRACTOR/LOCATION Inland-Ryerson/Chicago, Illinois			11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17. SOURCE Supplier

18. ROUTING INSTRUCTIONS: ROUTE TO FIELD ENGINEERING ROUTE TO MATERIAL SUPERVISOR

19. NONCONFORMING CONDITION: Technical specification 7220-C-39, Rev. 5, Section 7.4 states in part, "Plane of cut shall not deviate from the 'square' more than 1/8 inch." Contrary to the above, a certain amount of reinforcing steel received in on M. R. R. AEO-46 does not conform to the above tolerance.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Bar ends to be Cadwelded which are out of square more than 1/8 inch will be reworked prior to Cadwelding to correct the excessive deviation by saw cutting or flame cutting as provided for in Section 10.10.1 of Specification 7220-C-231, Rev. 4.
Richard H. H. H. 2/8/74

21. FIELD DISPOSITION RESULTS:
WORK WILL BE ACCOMPLISHED DURING CADWELDED OPERATIONS. SEE CADWELDED INSPECTION PLAN ACTIVITY TO 4.10.2 & P. 10.10.1 2/8/74

23. ENGINEERING DISPOSITION RESULTS:

22. ENGINEERING DISPOSITION

24. IS DESIGN CHANGE REQUIRED NO YES, SEE ATTACHED:

DRAWING REV. _____ DCN. _____
SPEC. REV. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS

27. QC ACCEPTANCE

QC ENGINEER _____ DATE _____
AUTHORIZED INSPECTOR _____ DATE _____

NONCONFORMANCE REPORT

1. PAGE 1 OF 1	14. NCR NO. 57
25. DISPOSITION CONCURRENCE	
REWORK	REJECT
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
REPAIR	USE AS IS
<input type="checkbox"/>	<input type="checkbox"/>
PROJECT FIELD ENGINEER	DATE
<i>R. D. Valenzuela</i>	2-7-74
PROJECT ENGINEER	DATE
<i>A. J. Kelly</i>	2-11-74
PROJECT FIELD QC ENGINEER	DATE
AUTHORIZE INSPECTOR	DATE

2. DRAWING/PART NO. E7 (Rev-5)	REV. E8 (Rev-3)	7. PROJECT NO. 7220	12. REPORTED BY Robert J. Wolesslagle	DATE 2/4/74
3. ITEM DESCRIPTION Reinf. Bars		8. ITEM LOCATION Siding Area - Dow	13. VALIDATED BY <i>E. J. Admet</i>	
4. SERIAL NUMBER Heat No. 75P682		9. STARTUP SYSTEM NO. Non-App.	15. REPLACEMENT PART NO. Non-App.	
5. PURCHASE ORDER NO. C-39		10. QC FIELD INSPECTION PLAN NO. C-39-10	16. REPLACEMENT SERIAL NO. Non-App.	
6. CONTRACTOR/LOCATION Inland Ryerson, Chicago			11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17. SOURCE Construction

18. ROUTING INSTRUCTIONS: ROUTE TO FIELD ENGINEERING ROUTE TO MATERIAL SUPERVISOR

19. NONCONFORMING CONDITION: The elongation test on sample test bar for heat No. 75P682 failed at 3.8% (Spec. 7% Min.). Two bars were cut at random (Part 13; 3 of 7; Mk. 3 & Part 13; 5 of 7; Mk. 17A) from heat 75P682 for retest and both pieces failed; Mk. 3 at 6.1%, and Mk. 17A at 4.2%. This is in violation of Spec. 7220-C-39; Ref. ASTM-A615-72 (Elongation test for #18S, Grade 60 reinforcing shall be Min. 7%) (Unit #2 top steel-layer #1 and #2)

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

The following reinforcing items are rejected and are to be placed in a hold area pending removal either by vendor or scrap: (1) Part 13; Page 3 of 7; Mk. 3; Mk. 4A (2) Part 13; Page 5 of 7; Mk. 18; Mk. 17A; Mk. 30 (3) Part 13; Page 6 of 7; Mk. 37A, Mk. 43A, Mk. 8, Mk. 3A (4) Part 14; Page 2 of 3; Mk. 56 and (5) Part 16; Page 3 of 7; Mk. 21, Mk. 23; Mk. 24A; Mk. 25; Mk. 26A; Mk. 3

ENGINEERING DISPOSITION *Rel. by M. C. Kelly 2/11/74 R. D. Valenzuela*

21. FIELD DISPOSITION RESULTS:

23. ENGINEERING DISPOSITION RESULTS:

24. IS DESIGN CHANGE REQUIRED NO YES, SEE ATTACHED:

DRAWING _____ REV. _____ DCN _____

SPEC. _____ REV. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS _____

27. QC ACCEPTANCE

QC ENGINEER _____ DATE _____

AUTHORIZED INSPECTOR _____ DATE _____

NONCONFORMANCE REPORT

1. PAGE 1	14. REC NO. 58
OF 1	
25. DISPOSITION CONCURRENCE	
NEWSPR	INSPECT
NO PAID	INSTR. IN
DATE	DATE
PROJECT FIELD ENGINEER	DATE
PROJECT ENGINEER	DATE
PROJECT FIELD QC ENGINEER	DATE
AUTHORIZE INSPECTOR	DATE

2. DRAWING/PART NO. SPEC C-111	REV. 3	7. PROJECT NO. Midland, Mich., 7220	12. REPORTED BY <i>[Signature]</i>	DATE 2/13/74
3. ITEM DESCRIPTION 1" Containment Liner Plates		8. ITEM LOCATION Paint Building & Storage Yd.	13. VALIDATED BY <i>[Signature]</i>	DATE 2-13-74
4. SERIAL NUMBER S2-12-U1 to S1-15-U1, Seam Weld		9. STARTUP SYSTEM NO. N.A.	14. REPLACEMENT PART NO. N.A.	REV.
5. PURCHASE ORDER NO. N.A.		10. QC FIELD INSPECTION PLAN NO. C-111-10	15. REPLACEMENT SERIAL NO. N.A.	
6. CONTRACTOR/LOCATION N.A.		11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17. SOURCE Construction	
18. ROUTING INSTRUCTIONS: <input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING <input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR				

19. NONCONFORMING CONDITION: Specification 7220-C-111 Rev. 3 paragraph 9.2 stipulates that: "All liner plates welds shall be subjected to the following examinations. The referenced sections are contained in the ASME Code Proposed Section III Division 2 1973, unless otherwise noted." Paragraph 9.2, 3.1 refers to Section CC-5521.1 and paragraph 9.2, 3.2 refers to Section IX-3300 of that code. Contrary to the above, 3 radiographic reports, #27, #30 and #31 show inspection specification to be C-111, Rev. 3, Paragraphs 9.2.3.1 and 9.2.3.2 RT-XG-1 Rev. 0. ^{AT 2-13-74} does not encompass ASME Code Proposed Section III Div. 2. No tags applied.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Section 9.2.3 of 7220-C-111, Rev. 3, has not been implemented. Therefore, the applicable sections of 7220-C-111, Rev. 2 apply. Implementation is covered by TWX 3198, BEBC-199, which withdrew implementation of C-111, Rev. 3 for two weeks. Also, the frequency and interpretation requirements spelled out on the X-ray Reports were in error, since they really adhere to Rev. 2 requirements. *C.F. Clause 2-27-74*

21. FIELD DISPOSITION RESULTS:
Correction was made on AC. The last of Radiographic reports found to not film was reworked for compliance.

23. ENGINEERING DISPOSITION RESULTS:

24. IS DESIGN CHANGE REQUIRED <input type="checkbox"/> NO <input type="checkbox"/> YES, SEE ATTACHED:	26. REJECTED MATERIAL DISPOSITION <input type="checkbox"/> RETURN TO SUPPLIER <input type="checkbox"/> SCRAP	
DRAWING _____ REV. _____ DCN _____	REMARKS _____	
SPEC _____ REV. _____ ADD. _____		

27. QC ACCEPTANCE <i>[Signature]</i>	DATE 2/25/74
QC ENGINEER	DATE
AUTHORIZED INSPECTOR	DATE

NONCONFORMANCE REPORT

PAGE 1
OF 2
18 REVISIONS
19

DRAWING/PART NO. SPEC 7220-C-111	REV. 2	7. PROJECT NO. 7220	12. REPORTED BY <i>S. J. Albert</i>	DATE 2/13/74	25. DISPOSITION CONCURRENCE
ITEM DESCRIPTION Type "B" cadweld sleeves		8. ITEM LOCATION Outer primary shield wall	13. VALIDATED BY <i>J. Connolly</i>	DATE 2-17-74	REWORK <input type="checkbox"/> REJECT <input type="checkbox"/> REPAIR <input type="checkbox"/> USE AS IS <input type="checkbox"/> DISC. <input type="checkbox"/>
INITIAL NUMBER		9. STARTUP SYSTEM NO. N.A.	14. REPLACEMENT PART NO. N.A.	REV.	<i>J. C. Dalrymple</i> 2-22-74 PROJECT FIELD ENGINEER DATE
PURCHASE ORDER NO. 7220-C-52		10. QC FIELD INSPECTION PLAN NO. C-55-12, Log 323 C-55-13, Log 324	15. REPLACEMENT SERIAL NO. N.A.		<i>J. Connolly</i> 2-22-74 PROJECT FIELD QC ENGINEER DATE
CONTRACTOR/LOCATION Inland Ryerson		11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	16. SOURCE Construction		AUTHORIZED INSPECTOR DATE
ROUTING INSTRUCTIONS:		<input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING		<input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR	

NONCONFORMING CONDITION:
 Cadweld sleeve numbers B2A-7B, K2A-7B, M2A-6B, E2A-3B, M2A-1B, and E2A-4B have been rejected. There are no procedures in specification 7220-C-111, Rev. 2 to remove and replace cadweld sleeves on the thickened liner plate.

<input checked="" type="checkbox"/> FIELD DISPOSITION <input type="checkbox"/> FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING	21. FIELD DISPOSITION RESULTS: THE SUSPECT CADWELDS HAVE BEEN REMOVED IN ACCORDANCE WITH SEN 6-11-74C1 AND REPLACED IN ACCORDANCE WITH SPEC C-111 REV 3
No. C-111-4001 provides procedures for removing the cadweld sleeves from the thickened liner plate. Specification 7220-C-111, Rev. 3, includes provisions for rewelding cadweld sleeves to the thickened liner plate. Removal and replacement of the cadweld sleeves will be performed according to the provisions of Project Engineering's aforementioned approved procedures. <i>Steve Albert 2/21/74</i>	23. ENGINEERING DISPOSITION RESULTS: <i>2/21/74</i>

DESIGN CHANGE REQUIRED <input type="checkbox"/> NO <input type="checkbox"/> YES, SEE ATTACHED:	26. REJECTED MATERIAL DISPOSITION <input type="checkbox"/> RETURN TO SUPPLIER <input type="checkbox"/> SCRAP	27. QC ACCEPTANCE <i>S. J. Albert</i> 2/16/74 QC ENGINEER DATE AUTHORIZED INSPECTOR
DRAWING REV. DCN RE ADD.	REMARKS	

NONCONFORMANCE REPORT (CONT'D)

1. PAGE 2 OF 2

14. NCR NO.

59

Block 20 continued:

Further processing may proceed. Richard Dite 3/5/74

ORIGINAL

ACC

RECEIVED

NONCONFORMANCE REPORT

1. PAGE 1 OF 2
 14. NCR NO. 42-22774 60
 25. DISPOSITION CONCURRENCE
 REWORK PROJECT REPAIR USE AS IS DCN
 Xp 2-27-74
 T. Colby 2/15/74
 PROJECT FIELD ENGINEER
 DATE
 T. Colby 2-18-74
 PROJECT FIELD QC ENGINEER
 DATE
 AUTHORIZED INSPECTOR DATE

2. DRAWING/PART NO. 7220-C-616 REV. 4
 7. PROJECT NO. 7220
 12. REPORTED BY Brent DATE 2/14/74
 3. ITEM DESCRIPTION Sump Liner Plate 8. ITEM LOCATION Reactor Bldg. #2 Base Mat
 13. VALIDATED BY T. Colby DATE 12/14/74
 4. SERIAL NUMBER NA 9. STARTUP SYSTEM NO. NA
 15. REPLACEMENT PART NO. NA REV.
 5. PURCHASE ORDER NO. 7220-C-50A 10. QC FIELD INSPECTION PLAN NO. C-111-74
 16. REPLACEMENT SERIAL NO. NA
 6. CONTRACTOR/LOCATION Southern Boiler & Tank Works Inc., Memphis, Tenn. 11. ASME CODE ITEM YES NO
 17. SOURCE Supplier
 18. ROUTING INSTRUCTIONS: ROUTE TO FIELD ENGINEERING ROUTE TO MATERIAL SUPERVISOR

19. NONCONFORMING CONDITION: During installation of the sump, it was found that the centerline of the drain in the bottom of the sump liner plate in Reactor Bldg. #2 was fabricated 6" North of the sump centerline in lieu of 6" South of the sump centerline as shown on Dwg. 7220-C-616 Rev. 4. Sump will be removed from containment #2 and stored in weld area adjacent containment #2, pending rework.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING
 Rework of 2-27-74
 Repairs shall be accomplished in accordance with Project Engineering's approved Specification 7220-C-111 and its appendixes. See the attached 7220-FSK C-93 Rev. 0 for details.
 Rev 1 TU 2/15/74
 Brent 2/15/74
 T. Colby 2/15/74

21. FIELD DISPOSITION RESULTS:
 22. ENGINEERING DISPOSITION
 23. ENGINEERING DISPOSITION RESULTS:

24. IS DESIGN CHANGE REQUIRED NO YES, SEE ATTACHED:
 DRAWING REV. DCN
 SPEC REV. ADD

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP
 REMARKS
 27. QC ACCEPTANCE
 QC ENGINEER DATE
 AUTHORIZED INSPECTOR DATE

NONCONFORMANCE REPORT (CONT'D)

1. PAGE 2 OF 2

14. NCR NO. 60

1. O.K. to install sump liner plate in containment No. 2 prior to N.C.R. completion.

2. N.C.R. shall be completed prior to pouring concrete into sump.

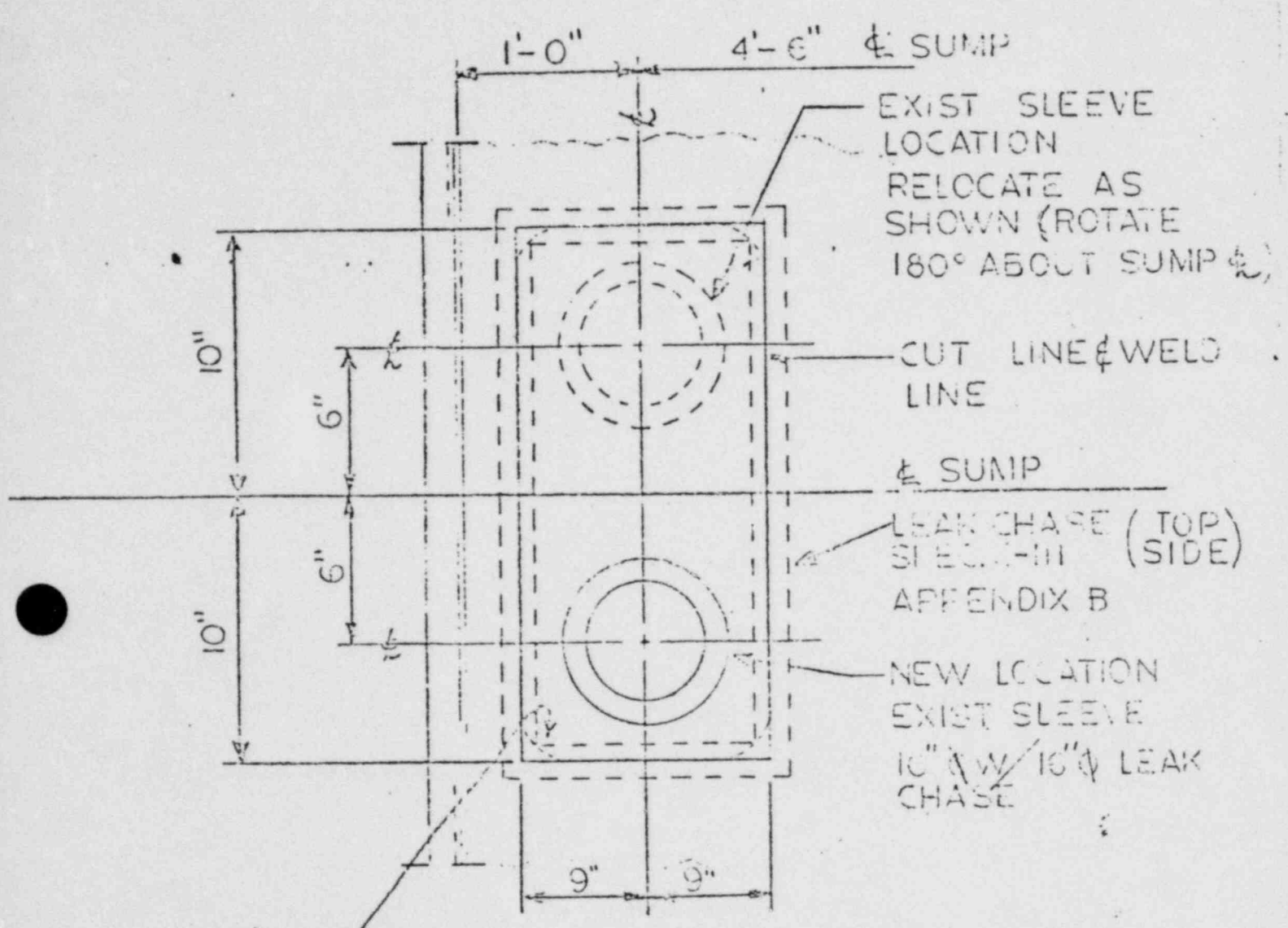
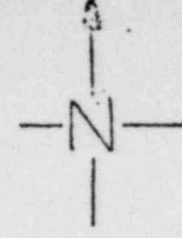
Approvals.

PFE *Richard H. ...*

PFQCE *...*

PQAE *...* 2/26/78

"CR 1000"



EXIST SLEEVE LOCATION
 RELOCATE AS SHOWN (ROTATE 180° ABOUT SUMP &)

CUT LINE & WELD LINE

& SUMP

LEAK CHASE (TOP) SPEC. III (SIDE) APPENDIX B

NEW LOCATION EXIST SLEEVE
 10" W/ 16" Ø LEAK CHASE

OPTIONAL 3" RAD. CUT LINE AT CORNERS

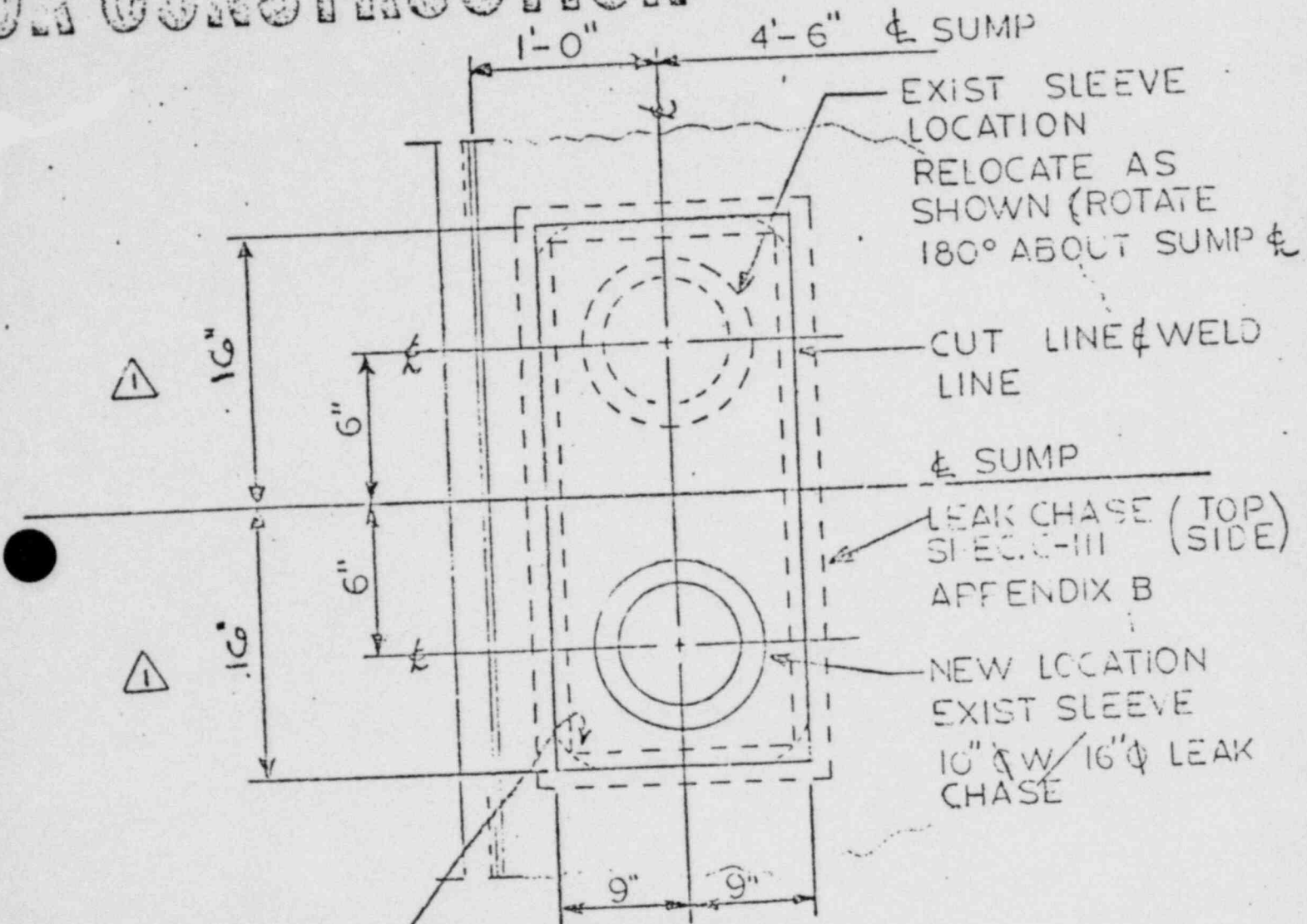
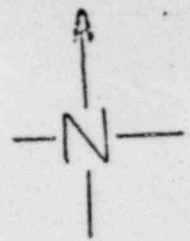
PLAN

NOTE: CUT, ROTATE, REPAIR & WELD IN ACCORDANCE WITH SPEC. C-III.

NOT TO BE USED
 IN CONSTRUCTION
 UNCONTROLLED

DR. ED	CHK. R.E.S.	DATE 2-15-74
BECHTEL POWER CORP. MIDLAND PLANT 112		
UNIT "2" SUMP 10" DIA. SLEEVE RELOCATION		
JOB NO.	DRAWING NO.	
7210	ESK C-03	

**UNCONTROLLED
NOT TO BE USED
FOR CONSTRUCTION**



OPTIONAL 3" RAD.
CUT LINE AT CORNERS

PLAN

NOTE: CUT, ROTATE, REPAIR &
WELD IN ACCORDANCE WITH SPEC.

DR. ED	CHK. K.E.S.	APR. 77	DATE 2-15-
BECHTEL POWER CORP. MIDLAND PLANT 142			
UNIT #2 SUMP 10" DIA. SLEEVE RELOCATION			

NER # 60

NONCONFORMANCE REPORT

1. PAGE 1 OF 1
14. REV. NO. 61

2. DRAWING/PART NO. 7220-C-230	REV. 2	7. PROJECT NO. 7220	12. REPORTED BY <i>Bayless Knell</i>	DATE 2-14-74
3. ITEM DESCRIPTION Cement User Test		8. ITEM LOCATION Off-Site Testing	13. VALIDATED BY <i>J. Kinross</i>	
4. SERIAL NUMBER NA		9. STARTUP SYSTEM NO. NA	14. REPLACEMENT PART NO. NA	
5. PURCHASE ORDER NO. 7220-C-208		10. QC FIELD INSPECTION PLAN NO. NA	15. REPLACEMENT SERIAL NO. NA	
6. CONTRACTOR/LOCATION United States Testing Co., Hoboken, New Jersey			11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
17. SOURCE United States Testing				
13. ROUTING INSTRUCTIONS: <input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING <input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR				

25. DISPOSITION CONCURRENCE				
REWORK	REJECT	REPAIR	USE AS IS	DISC.
			<input checked="" type="checkbox"/>	
AUTHORIZED INSPECTOR <i>Jay C. DeLuca</i>			DATE 2-21-74	
PROJECT ENGINEER <i>J. Kinross</i>			DATE 2-23-74	
PROJECT MATERIAL ENGINEER <i>J. Kinross</i>			DATE 2-23-74	

19. NONCONFORMING CONDITION:
 When performing User Test for cement, U.S. Testing has performed Gillmore time of set test ASTM C-266. ASTM C-150-72, Table 2, Footnote e states: "The purchaser should specify the type of setting-time test required. In case he does not so specify, or in case of dispute, the requirements of the Vicat Test only shall govern."

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

All cement user tests are conforming to ASTM C-150-72. There has been no failures or disputes regarding setting-time. Field recommends use as is.

FCR #59 has been initiated to amend Spec. 7220-C-230, Paragraph 7.1 to designate ASTM C-191 as method of determining time of set. *Bayless Knell 2-14-74.*

21. FIELD DISPOSITION RESULTS:

23. ENGINEERING DISPOSITION RESULTS:

ENGINEERING DISPOSITION

Engineering concurs that the alternative Gillmore Needle method is an adequate method for time of Setting test; since all tests met requirements of Table 2, ASTM C-150-72, Engineering recommends to "use as is" all cement and user tests performed to date. In the future, the Vicat Needle method should be used. No amendment to C-230 is required, since footnote e already requires the Vicat Method (ASTM C-191). *RDR 2/27/74*

23. ENGINEERING DISPOSITION RESULTS:

26. REJECTED MATERIAL DISPOSITION
 RETURN TO SUPPLIER
 SCRAP

REMARKS

24. IS DESIGN CHANGE REQUIRED NO
 YES, SEE ATTACHED:

DRAWING _____ REV. _____ DCN _____
 SPEC. _____ REV. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION

REMARKS

27. QC ACCEPTANCE

QC ENGINEER *J. Kinross* 2/27/74
 DATE

AUTHORIZED INSPECTOR _____ DATE _____

NONCONFORMANCE REPORT

1. PROJECT NO. **7220**

2. SHEET NO. **61**

3. DIVISION CONFERENCE

4. PROJECT ENGINEER **[Signature]** DATE **2/13/72**

5. PROJECT FIELD NO. **[Blank]** DATE

6. AUTHORIZED INSPECTOR **[Signature]** DATE

7. PROJECT NO. **7220**

8. FIELD LOCATION **Off-Site Testbed**

9. STARTUP SYSTEM NO. **FA**

10. FIELD INSPECTION PLAN NO. **FA**

11. SOURCE **United States Testbed**

12. FIELD ENGINEER **[Signature]** DATE **2-14-72**

13. FIELD ENGINEER **[Signature]** DATE **2-14-72**

14. PURCHASE ORDER NO. **220-C-203**

15. CONTRACTOR/LOCATION **United States Testbed Co., Hoboken, New Jersey**

16. ROUTE TO MATERIAL SUPERVISOR ROUTE TO FIELD ENGINEERING

17. SOURCE **FA**

18. FIELD ENGINEER **[Signature]** DATE **2-14-72**

19. NONCONFORMING CONDITION: **When performing Vicoor Test for cement, U.S. Testbed has performed Gillmore time of set tests ASTM C-265. ASTM C-150-72, Table 2, Footnote c states: "The purchaser should specify the type of setting-time test required. In case he does not so specify, or in case of dispute, the requirements of the Vicoor Test shall govern."**

20. FIELD DESCRIPTION: **FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING**

All cement water tests are conforming to ASTM C-150-72. There has been no failure of concrete specimens. Field Test Report is attached.

For 100 psi test specimens to cured base, 1220-C-203, Testbed 7.1 to designate ASTM C-191 as method of determining strength.

Engineering concerns that the alternative Gillmore Needle method is an adequate method for type of setting test; since all tests met requirements of Table 2, ASTM C-150-72, Engineering recommends to "use as is" all cement and water tests performed to date. In the future, the Vicoor Needle method should be used. No amendments to C-250 are required, since footnote c already requires the Vicoor Method (ASTM C-191). Rate 2/20/72 [Signature]

21. DESIGN CHANGE REQUIRED YES, SEE ATTACHED

22. DESIGN CHANGE REQUIRED NO

23. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER REUSE

24. REJECTED MATERIAL DISPOSITION **REUSE**

25. DESIGN CHANGE REQUIRED YES, SEE ATTACHED

26. DESIGN CHANGE REQUIRED NO

27. CC ACCEPTANCE **[Signature]** DATE **2/13/72**

28. ENGINEER **[Signature]** DATE

29. AUTHORIZED INSPECTOR **[Signature]** DATE

NONCONFORMANCE REPORT

1. PAGE 1 OF 2	14. NCR NO. 62
25. DISPOSITION CONCURRENCE	
REWORK	REJECT
REPAIR	USE AS IS
EOL	DATE
<i>Long C. Johnson</i>	2-27-74
<i>W. H. Hinkley</i>	2-21-74
PROJECT ENGINEER	DATE
<i>W. H. Hinkley</i>	3-1-74
PROJECT FIELD QC ENGINEER	DATE
AUTHORIZE INSPECTOR	DATE

6. DRAWING/PART NO. Spec. 7220-C-230	REV. 2	7. PROJECT NO. 7220	12. REPORTED BY <i>Long W. Hinkley</i>	DATE 2-14-74
1. ITEM DESCRIPTION Liquid Admixture for Concrete		8. ITEM LOCATION Concrete Placed to Date	13. VALIDATED BY <i>W. H. Hinkley</i>	DATE 2-14-74
2. SERIAL NUMBER NA		9. STARTUP SYSTEM NO. NA	14. REPLACEMENT PART NO. NA	REV.
4. PURCHASE ORDER NO. NA		10. QC FIELD INSPECTION PLAN NO. NA	16. REPLACEMENT SERIAL NO. NA	
3. CONTRACTOR/LOCATION Champion, Inc. On-Site Batch Plant		11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17. SOURCE Engineering	
5. ROUTING INSTRUCTIONS: <input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING <input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR				

8. NONCONFORMING CONDITION:
All controlled concrete placed to date has had liquid admixtures that contain chlorides. Spec. 7220-C-230, Paragraphs 7.4.2 and 7.4.3 states admixtures (air entraining and water reducing) shall contain no chlorides.

9. FIELD DISPOSITION
 FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

IOM from P.A. Martinez to E.E. Felton dated May 31, 1973 approves materials used at the time of project shutdown. Letters from Master Builders, dated December 14, 1973 states: "...MB-11C contributes no chloride to concrete through its use, i.e., less than 5PPM by weight of cement..." "...chloride is not an added ingredient in the manufacture of this MB-11C..." "That MB-VR standard is free of chloride inasmuch as it contributes chloride in

Engineering reviewed this matter and on 2/14/74 approved FCR-C-54; revised Spec. 7220-C-230 to Rev. 3 specifying the requirements of ASTM Standards; and wrote IOM- J. C. Hink to K. Wiedner - explaining the specification change. Engineering recommends use as is. *RRR 2/21/74*

21. FIELD DISPOSITION RESULTS:

23. ENGINEERING DISPOSITION RESULTS:
Spec. C-230-9002. Revid
2/26/74 *RRR*

18. IS DESIGN CHANGE REQUIRED
 NO
 YES, SEE ATTACHED:

DRAWING REV. DCN
C-230
REV. ADD. SEN C-230 702.

26. REJECTED MATERIAL DISPOSITION
 RETURN TO SUPPLIER
 SCRAP

REMARKS

27. QC ACCEPTANCE
W. H. Hinkley 2/26/74
QC ENGINEER DATE
AUTHORIZED INSPECTOR DATE

NONCONFORMANCE REPORT (CONT'D)

1. PAGE 2 OF 214. NCR NO. 62

Cont. from Page 1, Block 20 (Field Recommendation/Route to Project Engineering)

an amount equal to about 6PPM by weight of cement in the concrete." Paragraph 7.3 of 7220-C-230 states water used for mixing concrete "shall not contain more than 250 parts per million of chlorides as Cl." Therefore, if the specification for mixing water allows 250 PPM, the minute amounts of chlorides contained in the admixtures can be considered innocuous and Field recommends use as is. FCR No. 54 has been initiated to change the chloride specification.

Gary W. Bull 2-14-74
T. W. Ryan

NONCONFORMANCE REPORT

1. PAGE 1		2. INCH NO.	
of 2		62	
3. DISPOSITION CONCURRENCE			
PROJECT FIELD ENGINEER		DATE	
<i>[Signature]</i>		2-11-74	
PROJECT ENGINEER		DATE	
<i>[Signature]</i>		2-11-74	
PROJECT FIELD SUPERVISOR		DATE	
<i>[Signature]</i>		2-11-74	
AUTHORIZED INSPECTOR			

2. DRAWING/PART NO. Spec. 7220-C-230		REV. 2	7. PROJECT NO. 7220		11. RECORDED BY <i>[Signature]</i>		DATE 12-14-74	
3. ITEM DESCRIPTION Liquid Admixture for Concrete			4. ITEM LOCATION Concrete Placed to Date			12. VERIFIED BY <i>[Signature]</i>		DATE 2-11-74
4. SERIAL NUMBER NA		5. STARTUP SYSTEM NO. NA		13. REPLACEMENT PART NO. NA		REV.		
5. PURCHASE ORDER NO. NA		10. CC FIELD INSPECTION PLAN NO. NA		14. REPLACEMENT SERIAL NO. NA		17. SOURCE Engineering		
6. CONTRACTOR/LOCATION Champion, Inc. On-Site Batch Plant				11. ASME CODE 1924 <input type="checkbox"/> YES 1924 <input checked="" type="checkbox"/> NO				
18. ROUTING INSTRUCTIONS <input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING <input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR								

19. NONCONFORMING CONDITION: All controlled concrete placed to date has had liquid admixtures that contain chlorides.
Spec. 7220-C-230, Paragraphs 7.4.2 and 7.4.3 states admixtures (air entraining and water reducing) shall contain no chlorides.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

ION from P.A. Martinez to E.E. Felton dated May 31, 1973 approved materials used at the time of project shutdown. Letters from Master Builders, dated December 14, 1973 states: "...MB-VC contributes no chloride to concrete through its use, i.e., less than 5PPM by weight of cement..." "...chloride is not an added ingredient in the manufacture of this MB-VC..." "That MB-VR standard is free of chloride inasmuch as it contributes chloride in

21. ENGINEERING DISPOSITION

Engineering reviewed this matter and on 2/14/74 approved ECR-C-54; revised Spec. 7220-C-230 to Rev. 3 specifying the requirements of ASTM Standards; and wrote IOM- J. C. Hink to K. Wiedner - explaining the specification change. Engineering recommends use as is. *[Signature]*

21. FIELD DISPOSITION RESULT: IN

22. ENGINEERING DISPOSITION RESULT:
Spec. 7220-C-230-4002
Rec'd 2/11/74

24. IS DESIGN CHANGE REQUIRED? <input checked="" type="checkbox"/> NO	25. REJECTED MATERIAL DISPOSITION <input type="checkbox"/> RETURN TO SUPPLIER <input checked="" type="checkbox"/> REUSE	27. CC ACCEPTANCE
---	---	-------------------

NONCONFORMANCE REPORT (CONT'D)

PAGE 2 OF 2

18. MCR NO

cont. from Page 1, Block 20 (Field Recommendation/Note to Project Engineering)
 An amount equal to about 67% by weight of cement in the concrete." Paragraph 7.3 of 7220-C-230 states water used
 for mixing concrete "shall not contain more than 250 parts per million of chlorides as Cl." Therefore, if the specific
 cation for mixing water allows 250 PPM, the minute amounts of chlorides contained in the admixtures can be considered
 innocuous and field recommends use as is. FCR No. 56 has been initiated to change the chloride specification.

George K. Hill
1-11-74

APPROVED

ON

FEB 25 1974

APPROVED

DATE 2/25/74

SPECIFICATION CHANGE NOTICE

A. SPECIFICATION NO. 200-C-200 REV. 2 DATE 10/1/73

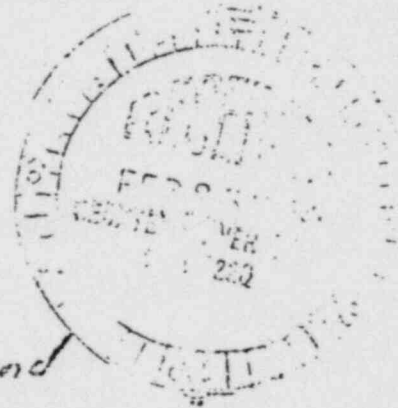
B. SPECIFICATION TITLE Quantity of Site and Plant Work to be Done

C. CHANGE REQUESTED BY CLIENT ENG'R'G FIELD VENDOR CONTRACTOR

D. CHANGE PREPARED BY R. L. Bader DATE 2/25/74

E. DESCRIPTION OF CHANGE
*Deleted specification requirements that concrete admixtures contain no chlorides.
Sections 24.2 and 24.3 are revised as shown on the attached copy of the specification.*

RECEIVED
FEB 25 1974
BECHTEL POWER CORP.
JOB # 200
PER PN



F. REASON FOR CHANGE NER C-82 (approved 2/14/74) and
FER C-54 (approved 2/14/74)

ADVANCE COPY

G. APPROVAL SIGNATURES

BECHTEL ENGINEERING [Signature] 2/25/74
PROJECT ENGINEER
[Signature] 2/25/74
GROUP SUPERVISOR
Robert L. Bader 2/25/74
CHECKER
[Signature] 2/25/74
ORIGINAL

H. INCORPORATED IN SPEC. _____ REV. _____ GROUP SUPERVISOR _____ DATE _____

7.4 Admixtures

Concrete shall contain a pozzolan, an air entraining agent and a water reducing agent. No other admixtures shall be used unless authorized. When available, admixtures shall be purchased and stored in liquid solution.

7.4.1 Pozzolans

Pozzolans shall conform to "Standard Specification for Fly Ash and Raw or Calcined Natural Pozzolans for use in Portland Cement Concrete" (ASTM C618-72). | △

All pozzolans shall be sampled and tested in accordance with "Methods of Sampling and Testing Fly Ash" (ASTM C311-68). Approximately 15 percent by weight of pozzolan will be used to replace cement in the mixes. The subcontractor shall submit documents certifying that the pozzolan to be furnished complies with these Specifications. The cement shall not be replaced by pozzolan if the pozzolan fails to comply with ASTM C618-72.

7.4.2 Air Entraining Agent

Air entraining agents shall conform to "Specification for Air Entraining Admixtures for Concrete" (ASTM C260-69), capable of entraining 3-6 percent air. | △

Manufacturer's certification shall be submitted stating that the air entraining agent conforms with ASTM C260-69 is capable of entraining 3-6 percent air. | △

The Subcontractor shall specify by name, in his proposal, the air entraining agent he proposes to use.

7.4.3 Water Reducing Agent

Water reducing and retarding agent shall conform to the "Standard Specification for Chemical Admixtures for Concrete" (ASTM C494-71), Type D.

Manufacturer's certification shall be submitted stating that the water reducing agent conforms with ASTM C494-71, Type D. | △

The Subcontractor shall specify by name, in his proposal, the water reducing agent he proposes to use.

7.5 Mortar Sand

Mortar Sand shall conform to the "Specification for Aggregate for Masonry Mortar" (ASTM C144-70).

ADVANCE COPY



RECEIVED
FEB 25 1974
CHTEL POWER CORP.
JOB 7320
PN

NONCONFORMANCE REPORT

1. PAGE 1 OF 1	14. REC NO. 63
25. DISPOSITION CONCURRENCE	
REWORK	REJECT
REPAIR	USE AS IS
DISPOSE	
X	
PROJECT FIELD ENGINEER <i>Ray C. Williams</i> 3-4-74 DATE	
PROJECT ENGINEER <i>W. J. Kelly</i> 3-5-74 DATE	
PROJECT FIELD QC ENGINEER DATE	
AUTHORIZED INSPECTOR DATE	

2. DRAWING/PART NO. Spec. - 7220-C-111	REV. 2	7. PROJECT NO. 7220	12. REPORTED BY <i>Richard D. ...</i>	DATE 2/14/74
3. ITEM DESCRIPTION 1" Containment Liner Plate		8. ITEM LOCATION Storage Yard E. of Paint Bldg.	13. VALIDATED BY <i>W. J. Kelly</i>	
4. SERIAL NUMBER S1-3-U2		9. STARTUP SYSTEM NO. N.A.	14. REPLACEMENT PART NO. N.A.	
5. PURCHASE ORDER NO. N.A.		10. QC FIELD INSPECTION PLAN NO. C-111-16	15. REPLACEMENT SERIAL NO. N.A.	
6. CONTRACTOR/LOCATION N.A.		11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		17. SOURCE Construction
18. ROUTING INSTRUCTIONS: <input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING <input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR				

19. NONCONFORMING CONDITION: Paragraph 8.1.5 of specification #7220-C-111 Rev. 2 states: "Sharp bends shall not be permitted unless provision has been made for them in the design. A sharp bend is defined as any local bend that deviates from design radius or a vertical straight edge by more than 1/2" offset in 24" . . ." Contrary to the above, a bend located at 609' elev. is in excess of 1/2" measured by using a 24" level resting one end at the highest point of the bend with the other end on a parallel plane to the flat plate surface and measuring at the wide point between the plate and level.

One Tag applied.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

The field will rework the sharp bend listed in block 19 in accordance with the repair procedure established in paragraph 3.1, appendix B, Specification 7220-C-111 Rev. 3. This rework will be done when the ambient air temperature is conducive to localized heating of the liner plate.

Richard D. ...
3/4/74

21. FIELD DISPOSITION RESULTS:

22. ENGINEERING DISPOSITION

23. ENGINEERING DISPOSITION RESULTS:

24. IS DESIGN CHANGE REQUIRED NO
 YES, SEE ATTACHED:

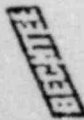
DRAWING _____ REV. _____ DCN _____
 SPEC. _____ REV. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER
 SCRAP

REMARKS _____

27. QC ACCEPTANCE

QC ENGINEER _____ DATE _____
 AUTHORIZED INSPECTOR _____ DATE _____



NONCONFORMANCE REPORT (CONT'D)

1. PAGE 2 OF 2

14. NCR / O. 63

Continuation of Block #20

This rework is to be completed prior to the sand blast preparation for coatings.

Processing up to this point may proceed.

Richard Hark 5/5/79

NONCONFORMANCE REPORT

1. PAGE 1	14. NO. OF PAGES 61
OF 1	
25. DISPOSITION CONCURRED BY	
BY NAME	DATE
PROJECT FIELD ENGINEER	DATE
PROJECT FIELD QC ENGINEER	DATE
AUTHORIZED INSPECTOR	DATE

2. DRAWING/PART NO. Procedure Specification	REV. 0	7. PROJECT NO. 7220	12. REPORTED BY <i>[Signature]</i>	DATE 2/18/74
3. ITEM DESCRIPTION Liquid Penetrant Materials		8. ITEM LOCATION Warehouse	13. VALIDATED BY <i>[Signature]</i>	
4. SERIAL NUMBER "Developer-4A012"		9. STARTUP SYSTEM NO. N/A	14. DATE 2/18/74	
5. PURCHASE ORDER NO. 7220 F-6826		10. QC FIELD INSPECTION PLAN NO. M.R.I. #M-6	15. REPLACEMENT PART NO. N/A	
6. CONTRACTOR/LOCATION Magnaflux/Chicago, Ill.		11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		16. REPLACEMENT SERIAL NO. N/A
18. ROUTING INSTRUCTIONS: <input type="checkbox"/> ROUTE TO FIELD ENGINEERING		17. SOURCE Procurement		
		<input checked="" type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR		

19. NONCONFORMING CONDITION: Procedure Specification PT-SR-1,2 Rev.0 paragraph 3.1.a states in part "Certified analyses shall be obtained from the manufacturer for all liquid penetrant materials used." Contrary to the above the P.O. did not request certified analyses reports. Certified analyses reports are required for penetrant-4A149, cleaner-3M013 and developer-4A012.

One tag applied.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

a. Magnaflux (Seller) say they have Certs in mail to BPC/Midland today 2-18-74.

b. P.O. is also being revised formally to reflect the requirement.

c. Please hand this NCR to Sr. Matl. Spvsr. G. S. Dexter in Receiving Area, pending completion of action in (a) and (b) whereupon he will coordinate with QC for reporting in Item 21. *Approved 2-18-74*

21. FIELD DISPOSITION RESULTS:

Instructions received from G. S. Dexter 2/18/74

22. ENGINEERING DISPOSITION

23. ENGINEERING DISPOSITION RESULTS:

24. IS DESIGN CHANGE REQUIRED NO YES, SEE ATTACHED:

DRAWING _____ REV. _____ DCN _____

SPEC. _____ "V. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS _____

27. QC ACCEPTANCE *[Signature]* 2-27-74

QC ENGINEER _____ DATE _____

AUTHORIZED INSPECTOR _____ DATE _____

NONCONFORMANCE REPORT

1. PAGE 1 OF _____	14. NCR NO. 65
25. DISPOSITION CONCURRENCE	
REWORK	REJECT
REPAIR	X
N/A	N/A
PROJECT FIELD ENGINEER	DATE
PROJECT ENGINEER	DATE
PROJECT FIELD QC ENGINEER	DATE
AUTHORIZED INSPECTOR	DATE

2. DRAWING/PART NO. SPEC-C-111	REV.	7. PROJECT NO. Midland 7220	12. REPORTED BY <i>[Signature]</i>	DATE 2/18/74
3. ITEM DESCRIPTION 1" Liner Plate S1-15-U1 to S2-12-U1		8. ITEM LOCATION Fab Building	13. VALIDATED BY <i>[Signature]</i>	DATE 2-18-74
4. SERIAL NUMBER		9. STARTUP SYSTEM NO. N/A	15. REPLACEMENT PART NO. N/A	REV.
5. PURCHASE ORDER NO. N/A		10. QC FIELD INSPECTION PLAN NO. C-111-10	16. REPLACEMENT SERIAL NO. N/A	
6. CONTRACTOR/LOCATION N/A		11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17. SOURCE Construction	
18. ROUTING INSTRUCTIONS: <input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING <input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR				

19. NONCONFORMING CONDITION:

SPEC. 7220-C-111 Rev. 3, Paragraph 7.1.7 states: "All holes in liner plate not shown on the design drawings shall have prior approval by engineering." Contrary to the above, torch cut holes were made through the liner plate for a penetration opening, before it was discovered that layout was mislocated. (5) of these torch cuts will remain in the plate assembly after relocated penetration is cut out. Need engineering disposition to repair torch-cuts. *to LIS*

20. <input type="checkbox"/> FIELD DISPOSITION <input checked="" type="checkbox"/> FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING	1 For <i>[Signature]</i>
Repair holes in accordance with approved repair contained in Specification 7220-C-111 Rev. 3. <i>N 2-22-74</i>	21. FIELD DISPOSITION RESULTS:
ENGINEERING DISPOSITION	23. ENGINEERING DISPOSITION RESULTS:

14. IS DESIGN CHANGE REQUIRED <input type="checkbox"/> NO <input type="checkbox"/> YES, SEE ATTACHED:	26. REJECTED MATERIAL DISPOSITION <input type="checkbox"/> RETURN TO SUPPLIER <input type="checkbox"/> SCRAP REMARKS	27. QC ACCEPTANCE QC ENGINEER _____ DATE _____ AUTHORIZED INSPECTOR _____ DATE _____
DRAWING _____ REV. _____ DCN _____ SPEC. _____ REV. _____ ADD. _____		

NONCONFORMANCE REPORT

1. PAGE 1 OF <u>1</u>	14. NCR NO. <u>66</u>
25. DISPOSITION CONCURRENCE	
REWORK	REJECT
REPAIR	USE AS IS
DO	DO
PROJECT FIELD ENGINEER _____	DATE _____
PROJECT ENGINEER _____	DATE _____
PROJECT FIELD QC ENGINEER _____	DATE _____
AUTHORIZE INSPECTOR _____	DATE _____

DRAWING/PART NO. <u>C-52-1(1)</u>	REV. <u>4</u>	7. PROJECT NO. <u>7220</u>	12. REPORTED BY <u>Went</u>	DATE <u>2/21/74</u>
ITEM DESCRIPTION <u>Thickened Liner Plate</u>		8. ITEM LOCATION <u>Field Storage Area</u>	13. VALIDATED BY <u>J. Connolly</u>	DATE <u>2/21/74</u>
SERIAL NUMBER <u>NA</u>		9. STARTUP SYSTEM NO. <u>NA</u>	15. REPLACEMENT PART NO. <u>NA</u>	REV. <u></u>
PURCHASE ORDER NO. <u>7220-C-52</u>		10. QC FIELD INSPECTION PLAN NO. <u>C-55-13 Log #324</u>	16. REPLACEMENT SERIAL NO. <u>NA</u>	
CONTRACTOR/LOCATION <u>Inland Ryerson Chicago, Illinois</u>		11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17. SOURCE <u>Vendor</u>	

ROUTING INSTRUCTIONS: ROUTE TO FIELD ENGINEERING ROUTE TO MATERIAL SUPERVISOR

NONCONFORMING CONDITION: Assembly Mark #G1A of the secondary shield wall thickened liner plate has a bow up to a maximum of 1/2" in the center of the plate. This violates the tolerance given in the AISC Manual.

One tag Applied.

FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

bar dowels to be cadwelded on the assembly can easily be adjusted in the sleeve to be numb. The bow will have no significant effect on our fit-up. The field recommends that the assembly be accepted as is.

Went 2/22/74

21. FIELD DISPOSITION RESULTS:

ENGINEERING DISPOSITION

23. ENGINEERING DISPOSITION RESULTS:

IS DESIGN CHANGE REQUIRED NO YES, SEE ATTACHED:

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS

27. QC ACCEPTANCE

DRAWING _____ REV. _____ DCN _____

I.C. _____ F. _____ ADL. _____

QC ENGINEER _____ DATE _____

AUTHORIZED INSPECTOR _____ DATE _____

NONCONFORMANCE REPORT

1. PAGE 1 OF <u>1</u>	14. NCR NO. <u>67</u>
25. DISPOSITION CONCURRENCE	
REWORK	REJECT
REPAIR	USE AS IS
DISC	
PROJECT FIELD ENGINEER	DATE
PROJECT ENGINEER	DATE
PROJECT FIELD QC ENGINEER	DATE
AUTHORIZED INSPECTOR	DATE

DRAWING/PART NO. <u>C-615</u>	REV. <u>4</u>	7. PROJECT NO. <u>7220</u>	12. REPORTED BY <u>C. F. Clark</u>	DATE <u>2-21-74</u>
ITEM DESCRIPTION <u>Electrical Penetration Assembly</u>		8. ITEM LOCATION <u>Unit #2</u> <u>287°-E1. 621'-6" & 617'-6"</u>	13. VALIDATED BY <u>J. C. ...</u>	DATE <u>2-22-74</u>
SERIAL NUMBER <u>NA</u>	9. STARTUP SYSTEM NO. <u>NA</u>		15. REPLACEMENT PART NO. <u>NA</u>	REV.
PURCHASE ORDER NO. <u>NA</u>	10. QC FIELD INSPECTION PLAN NO. <u>C-111-9</u>		16. REPLACEMENT SERIAL NO. <u>NA</u>	
CONTRACTOR/LOCATION		11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17. SOURCE <u>Construction</u>	

ROUTING INSTRUCTIONS: ROUTE TO FIELD ENGINEERING ROUTE TO MATERIAL SUPERVISOR

NONCONFORMING CONDITION: The above penetration was installed at an azimuth of 286°-45'-10", instead of 287° as shown on drawing 7220-C-615. An angle of 0°-14'-50" represents a horizontal measurement of 3 inches on the liner plate surface. This penetration is identified by Southern Boiler as R-14L.

FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Field recommends "use as is."
Richard Dote
2/26/74

21. FIELD DISPOSITION RESULTS:

22. ENGINEERING DISPOSITION

23. ENGINEERING DISPOSITION RESULTS:

IS DESIGN CHANGE REQUIRED NO YES, SEE ATTACHED:

DRAWING REV. _____ DCN _____

PEC. _____ V. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS

27. QC ACCEPTANCE

QC ENGINEER _____ DATE _____

AUTHORIZED INSPECTOR _____ DATE _____

REPHIL

NONCONFORMANCE REPORT

7-5-74

1. PAGE 1 OF 1	14. NCR NO. 68
25. DISPOSITION CONCURRENCE	
PROJECT ENGINEER	DATE
PROJECT FIELD ENGINEER	DATE
PROJECT FIELD QC ENGINEER	DATE
AUTHORIZED INSPECTOR	DATE

2. DRAWING/PART NO. C-52-1(1)	REV. 4	7. PROJECT NO. 7220	12. REPORTED BY <i>[Signature]</i>	DATE 2-21-74
3. ITEM DESCRIPTION Thickened Liner Plate	8. ITEM LOCATION Field Storage Area	13. VALIDATED BY <i>[Signature]</i>	DATE 2-22-74	
4. SERIAL NUMBER NA	9. STARTUP SYSTEM NO. NA	15. REPLACEMENT PART NO. NA	REV.	
5. PURCHASE ORDER NO. 7220-C-52	10. QC FIELD INSPECTION PLAN NO. C-55-13	16. REPLACEMENT SERIAL NO. NA		
6. CONTRACTOR/LOCATION Inland Ryerson Chicago, Illinois	11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17. SOURCE Vendor		
18. ROUTING INSTRUCTIONS: <input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING <input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR				

19. NONCONFORMING CONDITION: Assembly Mark #'s F1A & G1A of the secondary shield wall thickened liner plate are incorrectly fabricated. The assemblies are similar in shape and the problem was caused by incorrect interpretation of "opposite hand and noted". Specifically, the assemblies should have had their mark numbers interchanged and backing strips placed on the opposite ends. This condition was discovered during installation.

Two tags applied.

20. <input checked="" type="checkbox"/> FIELD DISPOSITION	<input type="checkbox"/> FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING
The assemblies shall be remarked (F1-A to be G1-A & vice versa). The backing strip on the end of each assembly will be removed and a backing strip welded on the opposite end. This action will make the assemblies conform to requirements. Work will be performed according to Project Engineering's approved Specification 7220-C-111.	
<i>Approved 2/22/74</i>	

21. FIELD DISPOSITION RESULTS:
23. ENGINEERING DISPOSITION RESULTS:

22. ENGINEERING DISPOSITION

24. IS DESIGN CHANGE REQUIRED <input type="checkbox"/> NO <input type="checkbox"/> YES, SEE ATTACHED:	26. REJECTED MATERIAL DISPOSITION <input type="checkbox"/> RETURN TO SUPPLIER <input type="checkbox"/> SCRAP
DRAWING _____ REV. _____ DCN _____	REMARKS _____
SPEC. _____ REV. _____ ADD. _____	

27. QC ACCEPTANCE
QC ENGINEER _____ DATE _____
AUTHORIZED INSPECTOR _____ DATE _____

ORIGINAL

Block 20 continued:

Cadwelding on FIA and GIA may proceed. Field disposition to be implemented prior erection.

Richard Mote
3/5/74

NONCONFORMANCE REPORT

1. PAGE 1 OF <u>2</u>	14. NCR NO. <u>59</u>		
25. DISPOSITION CONCURRENCE			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER _____ DATE _____		PROJECT ENGINEER _____ DATE _____	
PROJECT FIELD QC ENGINEER _____ DATE _____		AUTHORIZED INSPECTOR _____ DATE _____	

6. SERIAL NO. <u>7220-C-50A-5(1)6</u>	REV.	7. PROJECT NO. <u>7220</u>	12. REPORTED BY <u>O.F. Clark</u>	DATE <u>2-22-74</u>
3. ITEM DESCRIPTION <u>Containment Liner Plate</u>		8. ITEM LOCATION <u>Containment Unit #2</u>		13. VALIDATED BY <u>[Signature]</u>
4. SERIAL NUMBER <u>N.A.</u>		9. STARTUP SYSTEM NO. <u>N.A.</u>		DATE <u>2-22-74</u>
5. PURCHASE ORDER NO. <u>7220-C-50A</u>		10. QC FIELD INSPECTION PLAN NO. <u>N.A.</u>		15. REPLACEMENT PART NO. <u>N.A.</u>
6. CONTRACTOR/LOCATION <u>Southern Boiler & Tank Works, Memphis, Tenn.</u>		11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		16. REPLACEMENT SERIAL NO. <u>N.A.</u>
18. ROUTING INSTRUCTIONS: <input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING		17. SOURCE <u>Construction</u> <input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR		

19. NONCONFORMING CONDITION:
Liner plate assemblies for Unit #2 are to be opposite hand to those of Unit #1. Specifically, edge of plate is located three (3) inches counterclockwise from the centerline of erection columns on Unit #1 (as viewed from the inside) and should be located three (3) inches clockwise from the centerline of erection columns on Unit #2 (as viewed from the inside). Liner plate assemblies supplied by Southern Boiler and Tank Works for Unit #2 have the edge of plate located three (3) inches counterclockwise from the centerline of erection columns.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

~~The following completed penetration assemblies are installed 0⁰ 14' 50" less than the azimuth shown on the design drawings: Southern Boiler Numers R-20-L, R-12-L, R-13-L, and R-14-L. Field recommends to use these assemblies "as is". Remaining penetration assemblies will be redimensioned to compensate for the shop fabrication error. (Continued on page 2 of 2)~~

Robert White 2-22-74

ENGINEERING DISPOSITION _____

21. FIELD DISPOSITION RESULTS:

23. ENGINEERING DISPOSITION RESULTS:

24. IS DESIGN CHANGE REQUIRED <input type="checkbox"/> NO <input type="checkbox"/> YES, SEE ATTACHED:	26. REJECTED MATERIAL DISPOSITION <input type="checkbox"/> RETURN TO SUPPLIER <input type="checkbox"/> SCRAP	27. QC ACCEPTANCE
DRAWING _____ REV. _____ DCN _____	REMARKS _____	QC ENGINEER _____ DATE _____
SPIC _____ REV. _____ ADD _____		AUTHORIZED INSPECTOR _____ DATE _____

Block 20. (continued)

The following completed penetration assemblies are installed at an azimuth that is $0^{\circ}-29'-40''$ less than the azimuth shown on the design drawings: Southern Boiler Nos. R-12L and R-20L.

Field recommends to use these assemblies "as is". Remaining penetration assemblies will be redimensioned to compensate for the shop fabrication error.

Richard Dicks 2/26/74

#1
Bechtel Power Corporation

Inter-office Memorandum

Gary J. H.
Bill [Signature]
File 904

E. E. Felton

Date February 6, 1974

Subject Management Corrective Action
Report MCAR-1

From W. F. Holub

Of Quality Assurance

At Ann Arbor

Copies to
W. E. Ferriss
D. L. Johnson
M. M. Krout
P. A. Martinez
J. T. Marvin
E. Rumbaugh
J. Southard

As identified in the NQAM, Section Five, No. 10 (4.3), you are being identified as the action addressee in the resolution of the identified discrepancy.

The action addressee is responsible for determining the cause and formulating the action necessary to remedy the condition and preclude recurrence.

W. F. Holub [Signature]

W. F. Holub

WFH:jf

ID No: WHL-2-74-14

RECEIVED

FEB 6 1974
BECHTEL POWER CORP.
JOB 7220

PER [Signature]

REPORT NO. 5

DATE February 5, 1974

OB NO. 7220

Q NO. _____

*DESCRIPTION (Including references):

Listed on the attached page is the summary description of Audit Findings resulting from the Audit of Erico Products (Cadweld components supplier). Items A & B must be resolved prior to concrete placement over affected Cadwelds.

*RECOMMENDED ACTION (Optional)

- a) Determine the safety implications associated with the work performed to date. (Consult Project Engineering)
- b) Provide a recommendation as to the reportability of this discrepancy to the AEC. (Consult Project Engineering)
- c) Provide corrective action to prevent recurrence in the form of timely audit scheduling (Procurement Inspection).

REFERRED TO ENGINEERING CONSTRUCTION QA MANAGEMENT _____

ISSUED BY [Signature] 2-5-74
Project QA Engineer Date

REPORTABLE DISCREPANCY

NO

YES

NOTIFIED CLIENT _____

Date

Project Manager

Date

III CAUSE

CORRECTIVE ACTION TAKEN

AUTHORIZED BY _____ Date

DISTRIBUTION:

- Project Manager
- Construction Manager
- Engineering Manager
- Project Engineer
- Proj. Supt. / Proj. Const. Mgr.
- or P & I Procurement Mgr.
- Chief Field QC Engineer
- or Procurement Insp. Mgr.
- QA Supervisor
- Client

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

CORRECTIVE ACTION IMPLEMENTED

VERIFIED BY _____ Date
Project QA Engineer

*Describe in space provided and attach reference document.

NCAR #5

ATTACHMENT A

On January 31, 1974 Bechtel Personnel conducted an audit of ERICO Products Inc. at their Cleveland, Ohio Plant. ERICO is the supplier of the Cadwelding Components being used for the Midland Project.

Three Audit Findings resulted from this audit and are as described:

AUDIT FINDING NO. 1

ERICO's control of measuring and test equipment is not being properly implemented. There are no historical records to verify calibration of equipment or a formal program to provide implementation. Also, gages are not properly tagged to provide an acceptable method for recall.

AUDIT FINDING NO. 2

The documentation supporting ERICO's cleaning process was incomplete and unacceptable.

AUDIT FINDING NO. 3

It was noted that ERICO was not filling in their Nonconformance Reports to the extent they describe in their procedure.


W. F. Holub

WFH:mmp

QUALITY ASSURANCE PROGRAM
PROJECT AUDIT REPORT

Copy to
Bill [unclear]
File 7.1 C-4

Job Name & No. Midland - 7220

Audit No. C-4

Unit No. 1 & 2

Audit Date February 20-21, 1974

Type of Audit Construction

Auditor Holub/Richardson

Organizations Audited Quality Control

Construction

Individuals Contacted J. Connolly

E. Felton

T. Valenzano

A. Albert

Description of Audit (Agenda)

- a) Nonconforming materials, parts or components
- b) Receipt inspection
- c) Storage inspection
- d) Handling, storage and shipping procedures

Summary of Deficiencies Noted and Corrective Action Commitments (QAF #) (See Attached)	Responsibility	Date Committed
1) Receiving Inspection Plans	J. Connolly	3/08/74
2) Disposition of Nonconformance Report No. 50	E. Felton/ J. Connolly	3/08/74
3) Project Engineering approval of Nonconformance No. 60	E. Felton/ J. Connolly	3/08/74

Distribution:

- Project Manager
- QA Supervisor
- Project Engineer
- Project Superintendent

PQAE's Signature

W. F. Holub

Date

2-21-74

QUALITY AUDIT FINDING

C-4 1

AUDIT DATE
February 20, 1974

<small>1</small> BUYER/SELLER Midland 7220	<small>2</small> TYPE OF AUDIT Construction	<input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE	<small>3</small> AUDITOR Holub/Richardson
<small>4</small> CHECKLIST ITEM	<small>5</small> WHERE FOUND Receiving Inspection	<small>6</small> DISCUSSED WITH J. Connolly	
<small>7</small> DRAWING DOCUMENT, SECTION, PAF, GRAPH, ETC. Field Inspection Manual Procedure G-5, Rev. 0		<small>8</small> SAME AS Para. 3.3.1	

"Receiving Inspection shall be initiated by the QCE upon notification that material or equipment has arrived at the designated receiving area. This inspection shall be carried out in accordance with the Field Receiving Inspection Plan for the specific material or equipment being received."

In conformity to the above, on 2/20/74, the QCE was performing the receiving inspection function for reinforcing steel, 7220-C-39, Rev. 5 with the Master Receiving Inspection Plan and not the Field Receiving Inspection Plan. The Master Plan does not provide the specific inspection detail needed to adequately perform the function.

CORRECTIVE ACTION
Inspect the material, referenced above, by using the detailed Field Receiving Inspection Plan and provide response to show action taken to prevent recurrence.

<small>9</small> DATE OF COMPLETION 03/74	<small>10</small> RESPONSIBILITY FOR CORRECTIVE ACTION J. Connolly
--	---

CORRECTIVE ACTION TAKEN
The material was reinspected using the proper field inspection plan.
A QC training session was held on February 20, 1974 covering the proper use of inspection plans.

<small>11</small> FILED 1/74	<small>12</small> SUBMITTED BY RESPONSIBLE AUTHORITY W. Holub	<small>13</small> OFFICE PDME	<small>14</small> DATE 2-21-74
---------------------------------	--	----------------------------------	-----------------------------------

QUALITY AUDIT FINDING

C-4 2

AUDIT DATE
February 20, 1974

<small>CLIENT/SELLER</small> 7220	<small>TYPE OF AUDIT</small> Construction	<input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE	<small>AUDITOR</small> J. Connolly
<small>CHECKLIST ITEM</small> 19, 45, 48	<small>WHERE FOUND</small> Construction	<small>DISCUSSED WITH</small> W. Holub/G. Richardson	
<small>DOCUMENT, SECTION, PARAGRAPH, ETC.</small> Procedure G-3, Rev. 5		<small>SAME AS I.</small>	

4.6.2 The Project Field Engineer's authority to make dispositions of nonconformances shall be subject to the requirements of 4.6.1 and the following: Rework, Repair, Reject, Use as Is.

App. B-20 The Field Engineer making the disposition or recommendation shall sign and date at the end of the statement.

App. B-25 The disposition shall be checked by the dispositioning organization...

The following was noted on NCR No. 50, Rev. 1.

The disposition stated in Block 20 does not meet the requirements stated in No. 1 above. No clear disposition is stated.

Field Engineer making the disposition did not sign and date at the end of the statement in Block 20.

The disposition has not been checked in Block 25.

- CORRECTIVE ACTION**
- Determine the correct disposition and indicate in Block 20 and 25 and then route the NCR in accordance with FIM Procedure G-3, Rev. 5.
 - Have the dispositioning Field Engineer sign and date in Block 20.

<small>SCHEDULE COMPLETION DATE</small> /08/74	<small>RESPONSIBILITY FOR CORRECTIVE ACTION</small> F. E. Felton/J. Connolly
---	---

- CORRECTIVE ACTION TAKEN**
- Field recommendation was indicated as "use as is" and the NCR was sent to Project Engineering on February 21, 1974.
 - The Field Engineer making the recommendation signed the NCR.

<small>COMPLETED</small> 1/74	<small>SUBMITTED BY - RESPONSIBLE AUTHORITY</small> J. Connolly OFFICE	<small>DATE</small> 2-21-74
<small>EFFECTIVE ACTION VERIFIED BY</small> W. Holub PRATF		

QUALITY AUDIT FINDING

C-4 (3)

AUDIT DATE
February 20, 1974

OBJECT/DEPARTMENT/SELLER Midland 7220	TYPE OF AUDIT Construction	<input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE	AUDITOR W. Holub/G. Richards
CHECKLIST ITEM 1	CHECKLIST ITEM	WHERE FOUND Quality Control Files	DISCUSSED WITH J. Connolly
DOCUMENT, SECTION, PARAGRAPH, ETC. G-3, Rev 5		SAME AS 1.	

1. 4.6.2b; repair; requires approval by the Project Engineer prior to implementation.
2. App. B-20; Used approved repair procedure: The standard procedure and the authority for using it shall be referenced in this block.

Number 20 of NCR-60 indicates a disposition of repair. This NCR has not been referred to the Project Engineer for approval. The repair being accomplished is beyond the scope of Specification 7220-C-111, Rev. 3, Appendix B, therefore, a disposition of "use approved repair procedure" is not appropriate.

Refer this NCR to the Project Engineer for approval prior to implementation of this disposition.

SCHEDULE COMPLETION DATE 2/28/74	RESPONSIBILITY FOR CORRECTIVE ACTION E. E. Felton/J. Connolly
-------------------------------------	--

The original NCR disposition was incorrect. The field disposition was reevaluated and it was determined that the correct disposition was rework. The NCR was changed to reflect this disposition and the NCR was then processed in accordance with FIM Procedure G-3, Rev. 5.

COMPLETED 2/21/74	SUBMITTED BY RESPONSIBLE AUTHORITY <i>W. G. Holub</i> Project Field Eng.	DATE 2-21-74
CORRECTIVE ACTION VERIFIED BY NAME <i>W. G. Holub</i> PIRAF		

QUALITY ASSURANCE DISCREPANCY REPORT
(QA DAILY LOG SUPPLEMENT) JOB NO. 7220

1 PROJECT/DEPT./SELLER Midland - 7220		2 POINT OF ORIGIN <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE		3 QAD IDENT. NO. 001
6 DAILY LOG DATE 2/05/74		7 CHECKLIST ITEM 25	8 WHERE FOUND Document Control Area	
10 CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC FIM G-2, Appendix A, QCNM - PSP #4 - 4.2.2.7				4 ISSUE DATE 2/05/74
11 QUOTATION FIM G-2, Appendix A - "The following instructions are provided as a guide for preparing, maintaining and processing the Field Change Request Log and Status Book, QC-1 FCR."				5 QAD PREPARED BY G. Richardson
12 DISCREPANCY DESCRIPTION The following blocks are not being filled out correctly on Form QC-1 FCR. Block No. 3: In seven cases the field engineer printed his name rather than signing it. Block No. 4: FCR C-46 does not show a description of the existing condition and requested field change. Block No. 5: Revision numbers of drawings and specifications are not being entered. This was noted on 14 entries on a spot check. Block No. 6: The word field is being entered in this block rather than the design originator. This was noted on all entries. Block No. 8: FCR C-49 was transmitted on 1/25/74. A copy of this FCR was not available. See Attached Sheet				
13 RECOMMENDED CORRECTIVE ACTION 1. Correct the existing FCR logs to conform to the instruction. 2. Hold a training session for the responsible engineers and document controllers to assure the proper use of this form.				
14 SCHEDULED COMPLETION DATE 2-22-74		15 RESPONSIBILITY FOR CORRECTIVE ACTION E. E. Felton		
16 CORRECTIVE ACTION TAKEN				
17 DATE COMPLETED		18 SUBMITTED BY RESPONSIBLE AUTHORITY		
19 CORRECTIVE ACTION VERIFIED BY QAE				DATE

12 DISCREPANCY DESCRIPTION (Cont'd.)

Block No. 9: The date the reply was received is not being recorded. This block is being used for other remarks.

Block No. 13: The disposition of the FCR (approved or disapproved) is not being recorded. The letters "Eng" are being entered into this block.

QUALITY ASSURANCE DISCREPANCY REPORT
(QA DAILY LOG SUPPLEMENT) JOB NO. 7220

3 QAD IDENT. NO.

002

4 ISSUE DATE

2/05/74

1 PROJECT/DEPT./SELLER

Midland - 7220

2 POINT OF ORIGIN

FIELD

OFFICE

5 QAD PREPARED BY

G. Richardson

6 DAILY LOG DATE

2/05/74

7 CHECKLIST ITEM

19

8 WHERE FOUND

Document Control Area

9 DISCUSSED WITH

J. Dean

10 CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC

FIM G-2, Appendix B

11 QUOTATION

1. Block 1: "Enter the number of pages involved"...., "If during processing additional sheets are required, revise the no. of pages."
2. Block 6: "If vendor, identify by name and address."
3. Block 8: "Use additional FCR forms as necessary...."

12 DISCREPANCY DESCRIPTION

1. FCR's C-10, C-13, C-15 do not indicate the proper number of pages.
2. FCR C-34 does not include the vendor's address.
3. FCR forms were not used for continuation sheets on FCR's C-2, C-7 and C-15.

13 RECOMMENDED CORRECTIVE ACTION

1. Correct discrepancies on the noted FCR's and review the remaining for adherence to the procedures.
2. Train the responsible engineers in the use of this form.

14 SCHEDULED COMPLETION DATE

2-22-74

15 RESPONSIBILITY FOR CORRECTIVE ACTION

E. E. Felton

16 CORRECTIVE ACTION TAKEN

17 DATE COMPLETED

18 SUBMITTED BY RESPONSIBLE AUTHORITY

19 CORRECTIVE ACTION VERIFIED BY QAE

DATE

QUALITY ASSURANCE DISCREPANCY REPC...
 (QA DAILY LOG SUPPLEMENT) JOB NO. 7220

3 QAD IDENT. NO.	003
4 ISSUE DATE	2/05/74

1 PROJECT/DEPT./SELLER Midland - 7220	2 POINT OF ORIGIN <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE	5 QAD PREPARED BY G. Richardson
6 DAILY LOG DATE 2/05/74	7 CHECKLIST ITEM 16	8 WHERE FOUND Docuemnt Control Area
9 DISCUSSED WITH J. Dean		

10 CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC
 QCRM, SF/PSP #4 - 3.2.4

11 QUOTATION
 3.2.4.3 "The document controller is responsible for maintenance of an FSK log."

12 DISCREPANCY DESCRIPTION

- The revision numbers for many field sketches are not shown on the FSK log. Examples are FSK Nos. C-3, Rev. 1; C-9, Rev. 1; C-12, Rev. 0; C-13, Rev. 1; C-18, Rev. 1; C-23, Rev. 2; C-25, Rev. 2; C-68, Rev. 0.
- Incorrect revision numbers for the following field sketches were noted on the FSK log. FSK Nos. M-6, Rev. 3 (Rev. 2 on log); E-7 and E-8 both are Rev. 1 with Rev. 0 indicated on the log.
- Revision numbers are not being consistently used on field sketches. Some drawings do not have revision numbers assigned.

13 RECOMMENDED CORRECTIVE ACTION

- Review and update the FSK log to indicate the latest revisions.
- Issue instructions for maintaining the FSK log and to control the numbering system to be used.

14 SCHEDULED COMPLETION DATE 2-22-74	15 RESPONSIBILITY FOR CORRECTIVE ACTION E. E. Felton
---	---

16 CORRECTIVE ACTION TAKEN

17 DATE COMPLETED	18 SUBMITTED BY RESPONSIBLE AUTHORITY
-------------------	---------------------------------------

19 CORRECTIVE ACTION VERIFIED BY QAE	DATE
--------------------------------------	------

607212
 File
QUALITY ASSURANCE DISCREPANCY REPORT
 (QA DAILY LOG SUPPLEMENT) JOB NO. 7220

3 QAD IDENT. NO.

004

4 ISSUE DATE

2/06/74

1 PROJECT/DEPT./SELLER

Midland - 7220

2 POINT OF ORIGIN

FIELD

OFFICE

5 QAD PREPARED BY

G. Richardson

6 DAILY LOG DATE

2/06/74

7 CHECKLIST ITEM

12

8 WHERE FOUND

Testing Laboratory

9 DISCUSSED WITH

K. Rademacher

10 CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC

U. S. Testing Company - QA Manual Rev. 1, Para. 13

11 QUOTATION

- 13.1 "Equipment used in the inspection and test services provided to Bechtel shall be calibrated..."
- 13.2 "The equipment requiring calibration will be identified along with the required calibration cycle."
- 13.3 "When equipment is found out of calibration, an evaluation of previous inspection and test results shall be made and documented."

DISCREPANCY DESCRIPTION

The following equipment is being used by U. S. Testing for measuring and testing and has not been controlled and calibrated.

- 1. One set of calipers used to measure the diameter of concrete cylinders.
- 2. The elongation punch and guage used to determine the elongation of reinforcing steel. (Serial No. of the guage is S.O. 113091)

13 RECOMMENDED CORRECTIVE ACTION

Control and calibrate the equipment.

Evaluate tests results to date and document this if the equipment is found to be out of calibration.

14 SCHEDULED COMPLETION DATE

2-22-74

15 RESPONSIBILITY FOR CORRECTIVE ACTION

J. Connolly & R. Albert for IPC

16 CORRECTIVE ACTION TAKEN

The calipers and punch have been compared to a calibrated scale traceable to U.S. Bureau of Standards. They were found to be within allowable tolerance.

17 DATE COMPLETED

3/1/74

18 SUBMITTED BY RESPONSIBLE AUTHORITY

Connolly & R. Albert for J.P. CONNOLLY

19 CORRECTIVE ACTION VERIFIED BY QAE

DATE

QUALITY ASSURANCE DISCREPANCY REPORT (QA DAILY LOG SUPPLEMENT) JOB NO. 7220

1 PROJECT/DEPT./SELLER Midland 7220		2 POINT OF ORIGIN		3 QAD IDENT. NO. 005	
				4 ISSUE DATE 2-13-74	
6 DAILY LOG DATE 2-13-74		7 CHECKLIST ITEM N/A	8 WHERE FOUND Liner plate fab. area		5 QAD PREPARED BY G. Richardson
9 DISCUSSED WITH J. Stocks					
10 CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC SPEC. 7220-C-111, Rev. 3, and WPMC-1, Rev. 10					
11 QUOTATION SPEC. 7220-C-111, section 7.4. "The - - - - and disbursement of welding filler material shall be in accordance with the "Bechtel Corp. welding standard WPMC-1, Rev. 10". WPMC-1, Rev. 10, section 6.5. "Damaged electrodes shall be placed in waste bins and removed from the work area."					
12 DISCREPANCY DESCRIPTION Discarded covered electrode stubs and damaged rods (7018) were found on the ground behind the exray lab. This problem has been previously identified on 12-13-73, 12-24-73 and 2-6-74.					
13 RECOMMENDED CORRECTIVE ACTION Remove all discarded filler materials from the work area. Hold an Indoctrination/training session on the requirements of the procedures and importance of filler material control.					
14 SCHEDULED COMPLETION DATE 2-22-74			15 RESPONSIBILITY FOR CORRECTIVE ACTION E.E. Felton		
16 CORRECTIVE ACTION TAKEN					
17 DATE COMPLETED		18 SUBMITTED BY RESPONSIBLE AUTHORITY			
19 CORRECTIVE ACTION VERIFIED BY QAE					DATE

Block 13 (Cont'd.) QADR No. 006

3. If the work was not performed in accordance with the dispositions, issue another NCR.
4. E. Felton/J. Connolly - Instruct the Field Engineers and QC Engineers on the importance of obtaining approval of dispositions prior to implementing the dispositions.

W. L. Kessler
G. S. Keeley
H. W. Slager
T. C. Cooke
Subject File



CONSUMERS POWER

Nonconformance No OF-2

Issue Date 12/6/73
Proj: Midland Plants
Units 1 & 2
File Title Nonconformance Reports

Nonconformance Report is issued to:

Project Superintendent

Prepared by R.E. Whitaker Date 12/7/73
Reviewed by H.W. Slager Date 12/7/73
Action Required by Date 1/4/74
Reply Required by Date 12/17/73

Who is responsible for correction action.

Nonconformance Description and Supporting Details:

- 1) Appendix B, Rev. 0 to specification 7220-C-111 was reportedly used for inspection of liner plate surface imperfection before it was approved for use. See the letter from T. C. Cooke to G. S. Keeley for supporting data.
- 2) A copy of the above appendix was available at the site and there was no indication as to its approval status.
- 3) On November 28, 1973 (after the above items occurred) Appendix B was finally issued as an approved portion of the specification.

AEC Reportable Yes No See Procedure 9 - Reporting of Deficiencies to AEC
AEC Notified on 12/6/73 by G. S. Keeley Method Verbal

Recommended Corrective Action (If Appropriate): All inspection activities performed before the approved procedure was received must be reviewed for acceptability and procedure must be implemented to assure all safety related future work is done under approved procedures

Agreed Upon Corrective Action: 1) Conduct a final inspection of plates prior to coating or requalification. 2) Notify Document Controller of procedure to follow in receiving documents of this nature. 3) Documents for transmittal to the site are to have their status indicated at the point of origin.

Corrective Action Approved by JIDotson Date 2-5-74 of QC QA

Corrective Action Taken: 1) A hold point for inspection and requalification will be placed on the C-110 (Coating) inspection plan (Reference: EEFelton to TCCooke letter BCCC 110). 2) Document Controller notified of procedure in writing. (Reference: EEFelton to JLCorley letter BCCC 115). 3) Documents will have status indicated when sent. (Reference: PAMartinez IOM dated 1-3-74, File 0294, 0456)

Underlying Cause of Nonconformance: Improper control exercised on Specification C-111, Appendix B (preliminary). Also, communication difficulties between Bechtel construction and inspection personnel.

Nonconformance Implemented and Closure Confirmed by R.E. Whitaker Date 2/7/74

Copy To:

Route To:
SHHowell CQH11 s
WEKessler (HWS1) per
GSKealey
WFHolub
File: Midland 16.6



Consumers Power

Nonconformance No QF-3

F17 16.6

Issued Date January 16, 1974

Project Midland

File Title

This Nonconformance Report is issued to:

Bechtel Quality Control

who is responsible for correction action.

Prepared by R.E. Whitaker Date 1/16/74

Reviewed by [Signature] Date 1/16/74

Action Required by Date February 18, 1974

Reply Required by Date January 28, 1974

Nonconformance Description and Supporting Details:

See Attachment

AEC Reportable Yes No See Procedure 9 - Reporting of Deficiencies to AEC
AEC Notified on _____ by _____ Method _____

Recommended Corrective Action (If Appropriate):

1. Review all existing NCR's for implementation of proper tagging.
2. Instruct Quality Control personnel in proper tagging procedures.

Agreed Upon Corrective Action:

Corrective Action Approved by N.A. [Signature] Date 2/15/74 of QC QA

Corrective Action Taken:

1. All open NCRs were reviewed for proper tagging on January 22, 23, and 24, 1974.
2. A Quality Control training session on the implementation of FIM Procedure G-3, Rev. 05, including tagging has been held. See attached minutes of January 4, 1974 and January 25, 1974.

Underlying Cause of Nonconformance:

The complete revision of FIM G-3 (Received 12-28-73), including increased tagging requirements, took a period of time to implement.

Nonconformance Implemented and Closure Confirmed by R.E. Whitaker Date 2/20/74

January 16, 1974
Midland Project
QF-3

Rev. 5 of FIP G-3 which was received by the PFQCE on 12-31-73 requires tagging each piece of a nonconforming item.

January 2, 1974

Approximately one quarter of the assemblies with Type B sleeves were tagged.

January 7, 1974

H. W. Slager discussed tagging of the Type B cadweld assemblies with Z. G. Tucker and J. I. Dotson. At this time it was stated that it was Bechtels policy to tag all nonconforming items. Z. G. Tucker said he would contact J. Connolly on the subject.

January 10, 1974

Tagging of the Type B cadweld sleeve assemblies still not complete.

January 11, 1974

Tagging of all assemblies with Type B cadweld sleeves completed.

This series of events indicates that a problem exists in the timely implementation of NCR procedures as described in FIP G-3.

Copy To: Routes To:
Howell CQHills
Kassler HWSlager
Masley
JID
Midland 16.6



Consumers Power

Nonconformance No QF-4

File # 16.6
Issue Date January 16, 1974
Project Midland
File Title Nonconformance Reports on contractor (AE-Constructor) (Construction)

This Nonconformance Report is issued to:

Bechtel Project Superintendent
who is responsible for correction action.

Prepared by A.R. Keating Date 1-16-74
Reviewed by J.D. Masley Date 1/16/74
Action Required by Date February 14, 1974
Reply Required by Date January 31, 1974

Nonconformance Description and Supporting Details:

Welding of liner plate leak chase was not being done according to the weld procedure referenced in Specification C-111, Rev. 2. Leak chase was being welded over a welded section of replacement plate on liner plate S1-1-U2 on 1-9-74. A worker was observed knocking the coating off a 7018 electrode. The welder, (EM-34) then prepared to use the rod as a manually fed filler rod, feeding the rod into the arc created by the electrode in the electrode holder. This method is not part of weld procedure P1-A-C-Lh on which the welder was qualified and which is to be used on liner plate.

AEC Reportable Yes No See Procedure 9 - Reporting of Deficiencies to AEC
AEC Notified on _____ by _____ Method _____

Recommended Corrective Action (If Appropriate):

The Bechtel Senior Field Welding Engineer stopped the man's welding and had the "slugged" weld removed and repaired. Further corrective action needs to be taken by Bechtel to preclude recurrence. It is recommended that corrective action include increased surveillance of liner plate activities by supervisory personnel.

Agreed upon corrective action: Same as corrective action taken

Corrective Action Approved by N.A. DRK Date _____ of QC QA

Corrective Action Taken: (see "Recommended Corrective Action" above, for corrective action taken as of 1-16-74). Welders have been re-instructed as to application of proper welder techniques specified by Specification C-111. Bechtel Power Corporation supervisory personnel will survey the work on liner plate on an increased frequency during the fabrication process.

Underlying Cause of Nonconformance:

Insufficient understanding of weld requirements by welder.

Nonconformance Implemented and Closure Confirmed by A.R. Keating Date 2-19-74

Copy To: SHHowell, GSKeeley, WEKessler, Club JIDotson
 Route To: CQHills, HWSlager (last)



Consumers Power

Nonconformance No QF-5

1 : 16.6
 Issue Date 1-25-74
 Project Midland
 File Title Nonconformance Reports of Contractor (AE-Constructor) (Construction)

This Nonconformance Report is issued to:
 E. E. Felton
 Bechtel Project Superintendent
 who is responsible for correction action.

Prepared by DR Keating Date 1-25-74
 Reviewed by GS Kelly Date 1/25/74
 Action Required by Date February 22, 1974
 Reply Required by Date February 8, 1974

Nonconformance Description and Supporting Details: Leak chase pressure decay test is not being conducted in accordance with the controlling documents. On January 3, 1974, and January 4, 1974, a test pressure of 90 PSI was observed on leak chase of plates on the west jig. Specification C-111 calls for pressurization to 80 PSI. Regulatory Guide 1.19, which was in effect through a TWX dated December 26, 1973, from P. A. Martinez to E. E. Felton, calls for pressurization to the containment design pressure (67 PSI).

AEC Reportable Yes No See Procedure 9 - Reporting of Deficiencies to AEC
 AEC Notified on _____ by _____ Method _____

Recommended Corrective Action (If Appropriate):
 1) Provide assurance that all tests conducted to date are valid and that the pressure used in the instance above was not detrimental to the plate
 2) Clarify the requirements of the specification (i.e., set Agreed Upon Corrective Action: a pressure range for the test)
 1) Provide assurance that 90 psi is not detrimental to the plate.
 2) Set a pressure range for the test.

Corrective Action Approved by N.A. DRK Date _____ of QC QA

Corrective Action Taken: 1) Testing to 90 psi when 80 psi is required by specification is actually greater assurance of leak free weld. It is not probable that any detriment could occur that would not be detected and therefore rejected. 2) Because of this nonconformance, FCR-C-53 has been issued. Project Engineering has originated SCN-C-111-4004 which specifies a test pressure of from 80 to 90 psi. This SCN is expected to be released before February 22, 1974.

Underlying Cause of Nonconformance:
 Insufficient detail contained in Specification C-111.

Nonconformance Implemented and Closure Confirmed by DR Keating Date 2-20-74

Copy To: Route to:
well CQHills
ley HWSlager (last)
aler
son



Consumers Power

Nonconformance No QF-7

FI 16.6
Issue Date February 6, 1974
Project Midland 1 & 2
File Title Nonconformance Reports
on Contractor (AE-Constructor)
(Construction)

This Nonconformance Report is issued to:

EE Felton
Bechtel Project Superintendent

who is responsible for correction action.

Prepared by AK Keating Date 2-6-74

Reviewed by JF Kelly Date 2/6/74

Action Required by Date March 6, 1974

Reply Required by Date February 20, 1974

Nonconformance Description and Supporting Details:

Uncontrolled weld rod was found in an area where liner plate welding was in process. On 2-4-74, during walkthrough surveillance of the paint/sandblast building, several covered electrodes were observed scattered about the building floor and in the "dolly" rails. The weld rod was apparently left by the building subcontractor. The problem was identified to the Bechtel Senior Field Welding Engineer on 2-4-74. This same problem was identified previously by Consumers Power QA personnel in a daily log dated 12-24-73. Subsequent clean-up and departure from the site of the subcontractor resulted in that item being closed. Recurrence of the problem resulted in the issuance of this NCR.

AEC Reportable Yes No See Procedure 9 - Reporting of Deficiencies to AEC
AEC Notified on _____ by _____ Method _____

Recommended Corrective Action (If Appropriate):

- 1) Clean up uncontrolled rod in the area.
- 2) Take action necessary to preclude recurrence.

Agreed Upon Corrective Action:

- 1) Clean up uncontrolled rod in the area.
- 2) Have Bechtel Power Corporation supervisory personnel increase surveillance of the area to preclude recurrence.

Corrective Action Approved by N.A. AK Date _____ of QC QA

Corrective Action Taken:

- 1) Uncontrolled rod has been cleaned up and removed from the paint/sandblast building area.
- 2) Bechtel Power Corporation supervisory personnel have been instructed to surveil the area additionally to preclude recurrence of this problem.

Underlying Cause of Nonconformance:

Insufficient understanding of the importance of segregation of uncontrolled weld rod materials.

Nonconformance Implemented and Closure Confirmed by AK Keating Date 3-5-74

Route To:
CQHills
HWSlager
(last)
Midland 16.6



CONSUMERS POWER

Nonconformance No QF-8

Date 19 February 1974
Project Midland

File Title NCR's on Contractor
(A-E Contractor) (Construction)

Nonconformance Report is issued to:

JPConnolly
Bechtel Project Field Quality
Control Engineer

Prepared by Donald E. Horn Date 2-19-74
Reviewed by J. G. ... Date 2/19/74
Action Required by Date 20 March 1974
Reply Required by Date 28 February 1974

who is responsible for correction action.

Nonconformance Description and Supporting Details:

1.) Bechtel QC has unapproved Champion QA manual in their file. (2) The only approved copy of a Champion QA manual is marked "void" (3) Letter BEBC-50 from PA Martinez to EEFelton dated 9-13-73 states that Champion is required to assign one of their onsite personnel the responsibility for assuring adequate QA/QC program implementation and that he must be reasonably free of pressures of production. The man currently assigned this responsibility the plant supervisor, obviously does not meet this criterion. (4) The Champion QA manual references ACI and ASTM codes and/or revisions which are not in accord with Specification 230.

AEC Reportable Yes No See Procedure 9 - Reporting of Deficiencies to AEC
AEC Notified on _____ by _____ Method _____

Recommended Corrective Action (If Appropriate):

(1) Obtain approved copy of manual and see that Champion also has an approved copy on site (2) Enforce BEBC-50 requirements (3) Correct the manual ACI and ASTM code references (4) Review other subcontractor QA manuals to see that a similar situation does not exist.

Corrective Action Approved by _____ Date _____ of QC QA

Corrective Action Taken:

Underlying Cause of Nonconformance:

Nonconformance Implemented and Closure Confirmed by _____ Date _____

12/4/73